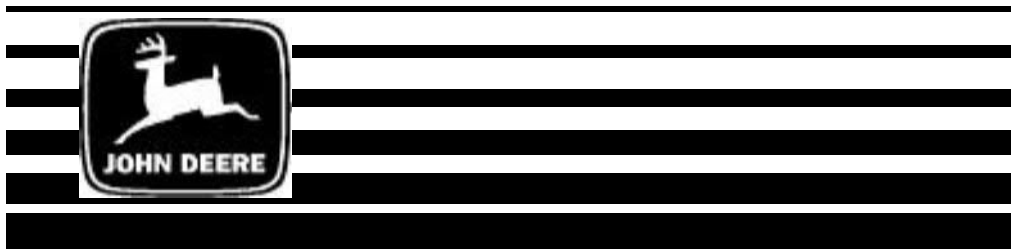


# **550 and 660 PTO Tillers for 50 and 55 Series Compact Utility Tractors**

(Serial No. 150001 – )



## **OPERATOR'S MANUAL**

**John Deere  
Lawn & Grounds Care Division  
OMM128097 F6**

North American Version  
Litho in U.S.A  
English

## INTRODUCTION

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**THANK YOU** for purchasing a John Deere product.

If you purchased the **550 Tiller** it can be mounted on the following John Deere (or similar) tractors:

- **650, 655, 670, 750, 755, 770, 850, 855, 870, 950, 955, and 970** series tractors.

If you purchased the **660 Tiller** it can be mounted on the following John Deere (or similar) tractors:

- **850, 870, 900HC, 950, 955, 970, 1050, and 1070** series tractors.

Read this manual and your vehicle manual thoroughly. Failure to do so could result in personal injury or equipment damage.



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 metric units and their U.S. customary equivalents. RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow ( - - - ➔ ) it indicates the part it is pointing to is hidden.

Product warranty is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The product warranty is explained on the warranty certificate you received from your dealer.

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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.

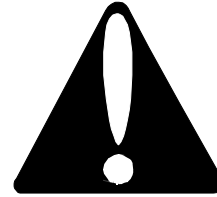
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# SAFETY SIGNS

## Safety-Alert Symbol

Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.

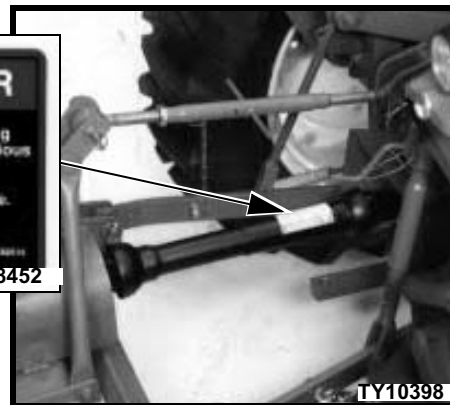
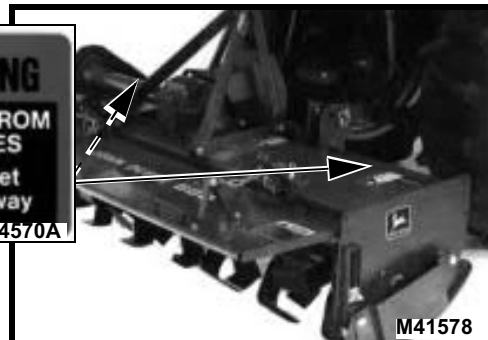
On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards. In this manual, the word CAUTION and this symbol call attention to safety messages.



## Machine Safety Labels

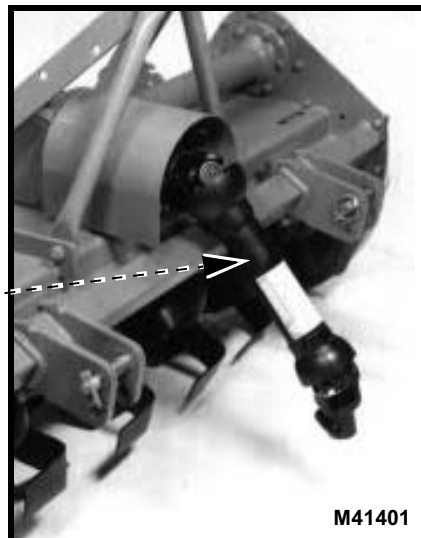
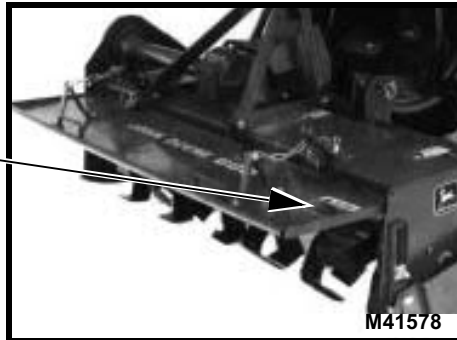


One on each side of tiller frame



# SAFETY SIGNS

## Machine Safety Labels (Continued)



## **PREPARING THE VEHICLE**

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### **Tire Pressure**

Inflate tires according to your Tractor Operator's Manual.

### **Tractor Requirements**

Your tractor must be equipped with:

- A category 1, 3-Point Hitch
- A 540 rpm PTO

### **550 Tiller**

**NOTE: The 550 Tiller can be mounted on tractors up to 30 PTO horsepower (22 kw), but the tractor wheel tracks may be wider than the tiller cutting width.**

The **550 Tiller** can be mounted on the following John Deere (or similar) tractors:

<b>Model Tractor</b>		
<b>650</b>	<b>655</b>	<b>670</b>
<b>750</b>	<b>755</b>	<b>770</b>
<b>850</b>	<b>855</b>	<b>870</b>
<b>950</b>	<b>955</b>	<b>970</b>

## **PREPARING THE VEHICLE**

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### **660 Tiller**

**NOTE: The 660 Tiller is not recommended for use on the 755 and 855 Tractor.**

The **660 Tiller** can be mounted on the following John Deere (or similar) tractors:

<b>Model Tractor</b>			
<b>850</b>	<b>870</b>		
<b>900HC</b>	<b>950</b>	<b>955</b>	<b>970</b>
<b>1050</b>	<b>1070</b>		

# INSTALLING

## SAFETY

### Park Vehicle Safely

- Stop vehicle on a level surface, not on a slope.
- Disengage PTO.
- Engage the park brake.
- STOP the engine.
- Remove the key.
- Before you leave the operator's seat, wait for engine and all moving parts to STOP.

### Stay Clear of Rotating Drivelines



Entanglement in rotating driveline can cause serious injury or death:

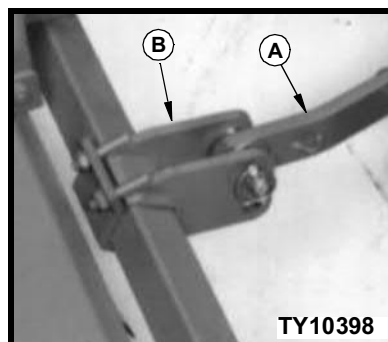
- Wear close fitting clothing.
- STOP the engine and be sure PTO driveline is stopped before getting near it.

### Fastening Tiller to Tractor

**IMPORTANT:** Fill gearcase and chaincase to proper oil level before you operate tiller. See the Service – Lubrication section. **DO NOT** overfill.

**NOTE:** Model 660 Tiller is shown.

1. Back tractor into position and align draft links (A) with draft link brackets (B) using tractor rockshaft control.



## INSTALLING

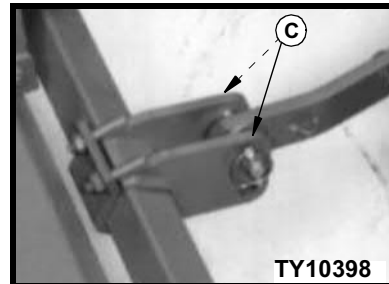


**CAUTION:** Before you work around hitch:

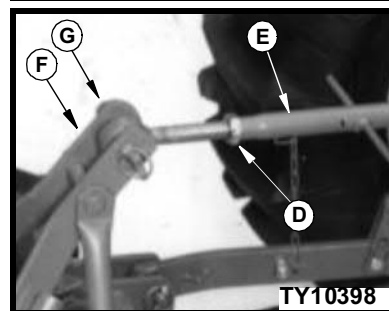


- STOP engine.
- LOCK park brake.

2. Fasten draft links to draft link brackets with pins (C) and quik-lock pins.



3. Loosen nut (D) to adjust center link and rotate turnbuckle (E) until center link can be attached to mast (F) with pin (G) and quik-lock pin.

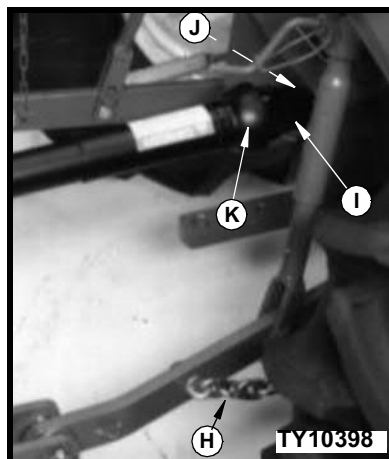


4. Adjust turnbuckles on sway chains (H) if necessary, to prevent interference with tires and to limit tiller side-to-side travel.

5. **550 Tiller:** Push collar forward and install coupler (I) on tractor splined shaft (J).

- **660 Tiller:** Pull collar rearward and install coupler (I) on tractor splined shaft (J).

**IMPORTANT:** Driveline **MUST NOT** exceed a **20°** angle. Move draft link angle on toolbar to reduce angle.



6. Push coupler completely onto shaft until collar snaps into LOCKED position. Pull bell (K) to make certain coupler is LOCKED.

# REMOVING

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## SAFETY

### Park Vehicle Safely

- Stop vehicle on a level surface, not on a slope.
- Disengage PTO.
- Engage the park brake.
- STOP the engine.
- Remove the key.
- Before you leave the operator's seat, wait for engine and all moving parts to STOP.

### 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.

### Removing Tiller



**CAUTION:** Before you remove tiller:

- Move PTO switch to OFF.
- STOP tractor.
- LOCK park brake.

1. Park tractor on hard, level surface.
2. Install park stand.
3. Lower tiller to ground.
4. Disconnect driveline from tractor.
5. Remove pin from center link.
6. Remove pins from draft links.
7. Drive tractor forward.

# OPERATING

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## SAFETY



### Operate Safely

- Check vehicle brake action before you operate. Adjust or service brakes as necessary.
- Protect your hands when you inspect or unplug the tiller. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Clear work area of objects that you do not want tilled into the ground or that might damage the tiller. Do not till under conditions in which traction or stability is doubtful. Keep people and pets out of the work area. Stop machine if anyone enters the area.
- If you hit an object, stop the machine and inspect it. Make repairs before you operate. Keep machine 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.
- DO NOT let anyone, especially children, ride on machine or vehicle.
- DO NOT let children or an untrained person operate machine.
- Do not wear radio or music headphones while operating the machine. Safe operation requires your full attention.

# OPERATING

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## Wear Appropriate Clothing



- Wear close fitting clothing and safety equipment appropriate for the job.
- Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.

## 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, and clothing away from the tine and driveline areas during tiller operation.
- Do not back up with the tiller in the ground. Before you back the tractor and tiller: Lift the tiller out of the ground; STOP power to the tiller; Wait for tines to STOP turning.
- Stop machine engine before you unplug, repair, or adjust tiller.

# OPERATING

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## Operating Tips

- Travel slowly when you are tilling.
- Avoid tilling near a ditch, rock pile, fence, concrete slab, building, or any object that could be a hazard.
- When you raise the tiller out of the ground or lower the tiller into the ground, the tractor may surge forward. Be ready to STOP the PTO and the tractor.
- When you operate the tiller too deep, or in hard soil, the tiller may begin to push the tractor forward. You may also lose steering control, and the brakes may not STOP the tractor. Be prepared to STOP the tiller by turning the PTO switch to the OFF position. Then adjust the tiller for shallow depth.
- DO NOT back up if the leveling board is down all the way.
- Avoid using an excessive rate of drop when you lower the tiller. See your tractor operator's manual for adjustment.
- Be very careful when operating the tiller on a slope. There is a greater possibility for accidents to happen on a slope than on level ground.
- Turn carefully at the end of each pass. The heavy tiller weight may be enough to upset the tractor if you turn too fast down a slope.
- Use the correct front weights for ballast on your tractor. These weights will help make the tractor more stable and help with steering control.
- Adjust the rear tractor wheels to the maximum width for greater stability on slopes.
- DO NOT drive the tractor and tiller up a steep slope. Back the tractor up and till on the way down.

## OPERATING

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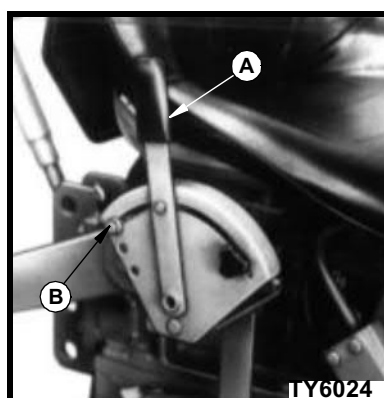
### Raising and Lowering Tiller

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**CAUTION:** When you raise tiller out of ground or lower tiller into ground, tractor may surge forward. Be ready to STOP PTO and tractor.

1. Push lever (A) forward to lower tiller.
  - Pull lever rearward to raise tiller.
2. Lower tiller to desired OPERATING position.
3. Set height stop (B) on rockshaft control lever so PTO shaft does not exceed 40° angle.



### Tractor Adjustments

See your Tractor Operator's Manual for the following:

#### LEVELING:

- Level tiller side-to-side using tractor left draft link.
- Level front-to-rear by turning tractor center link.

#### RATE OF DROP:

- Adjust rate of drop so it is slow enough to be safe.

#### SWAY CONTROL:

- Adjust anti-sway chains on 3-point hitch to prevent tiller from swaying.

#### DEPTH:

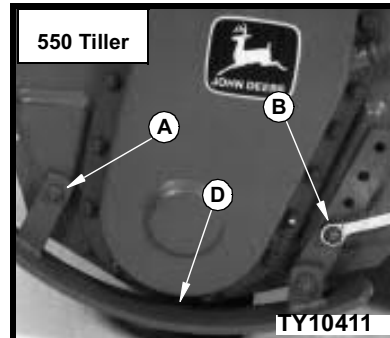
- Use rockshaft control lever to adjust tilling depth. Tiller depth can be adjusted 25 – 200 mm (1 – 8-in.).

## OPERATING

### Adjusting Skid Shoes

1. Raise tiller.
2. Loosen pivot bolt (A).
3. **550 Tiller:** Remove adjusting bolt (B) and lock nut.
  - **660 Tiller:** Loosen adjusting bolt (B), serrated washer (C), and lock nut.
4. Adjust skid shoes (D) to desired position.
5. Install hardware and tighten.

**NOTE: Adjust both skid shoes to same depth.**

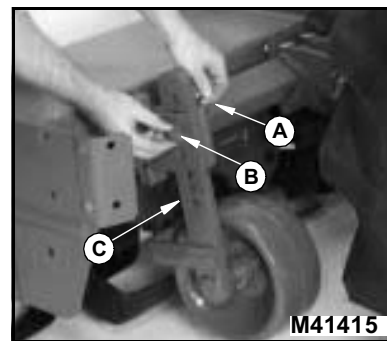


### Adjusting Optional Gauge Wheels



**CAUTION: DO NOT drop gauge wheel from mounting bracket when pin is removed.**

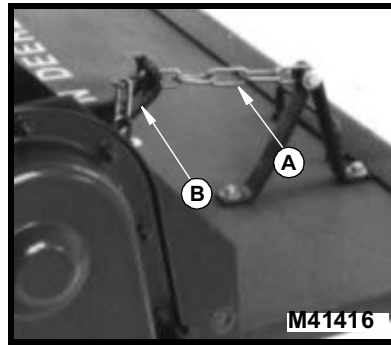
1. Raise tiller. Support it with jack or safety stand.
2. Remove spring lock pin (A), and adjusting pin (B).
3. Move wheel shank (C) to desired position.
4. Install adjusting pin, and fasten with spring locking pin.



# OPERATING

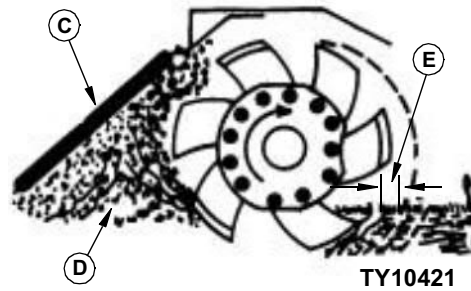
## Adjusting Leveling Board

1. Install chain (A) in bracket (B) on each side.



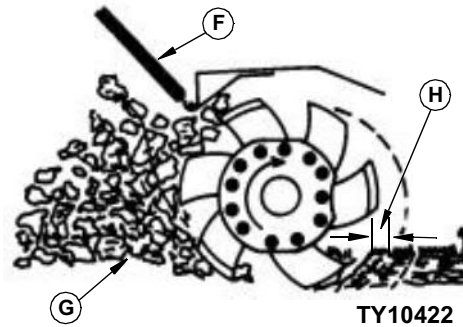
2. Lower leveling board to top of ground (C). Tilled soil (D) will be fine and level.

3. Tractor speed will determine size of clods (E).



4. Raise leveling board (F). Tilled soil (G) will be coarse and rough.

5. Tractor speed will determine size of clods (H).





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# OPERATING

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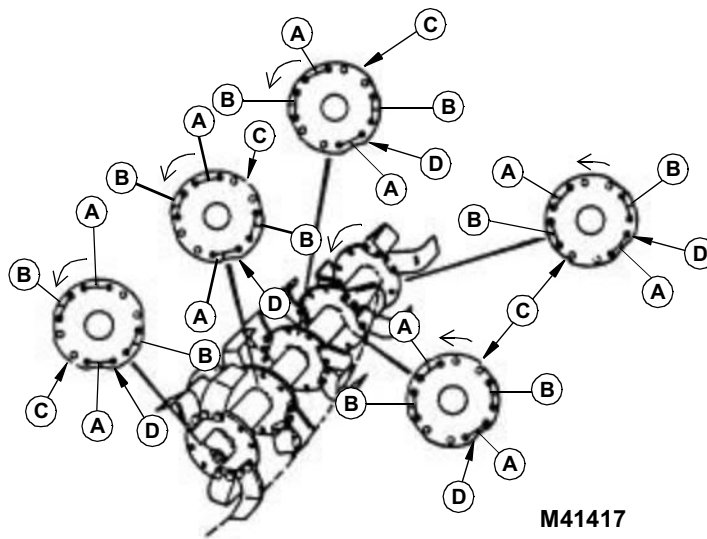
## Sticky Soil Conditions

Use a different tine arrangement on spindles when you till wet, sticky soil.

1. Raise tiller and support it with jackstands or safety blocks.
2. Remove all tines from spindles.

**IMPORTANT: Left tine MUST engage ground before right tine.**

3. Install two right-hand tines (A) and two left-hand tines (B) on spindles (C) using notch (D) as a reference (550 Tiller only).



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