

# **518R Walk-Behind Tiller**

**(Serial No. 010001 – )**

## **OPERATOR'S MANUAL**

**John Deere  
Worldwide Commercial and  
Consumer Equipment Division  
OMM134183 H7**

**North American Version  
Litho in U.S.A  
English**

# INTRODUCTION

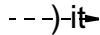
**THANK YOU** for purchasing a John Deere product.

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



**C** **WARNING:** The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.  
CALIFORNIA Proposition 65 Warning

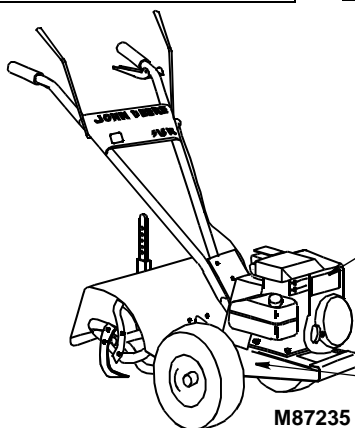
This manual should be considered a permanent part of your machine and should remain with the machine when you sell it.

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.

Record identification numbers below. Be sure to record all the numbers to help in tracing the machine if it is stolen. You also need to give these numbers to your dealer when you order parts.

**Date of Purchase:**  
\_\_\_\_\_

**Dealer Name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_



**Engine Serial Number:**  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

**Product Identification Number:**  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

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# SAFETY SIGNS

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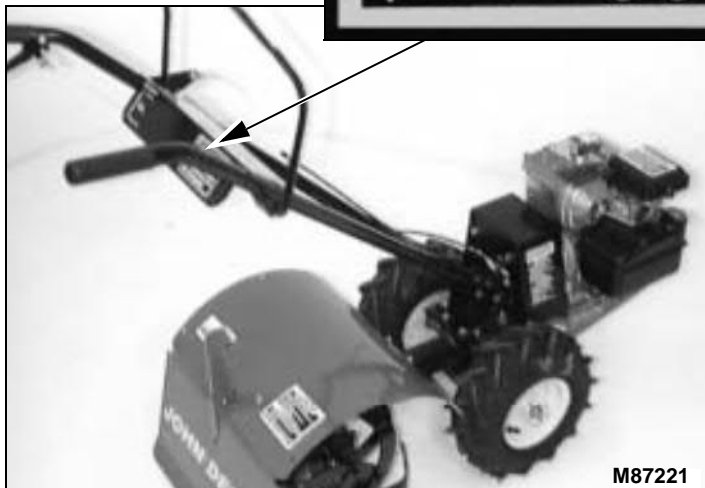
## Safety-Alert Symbol

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

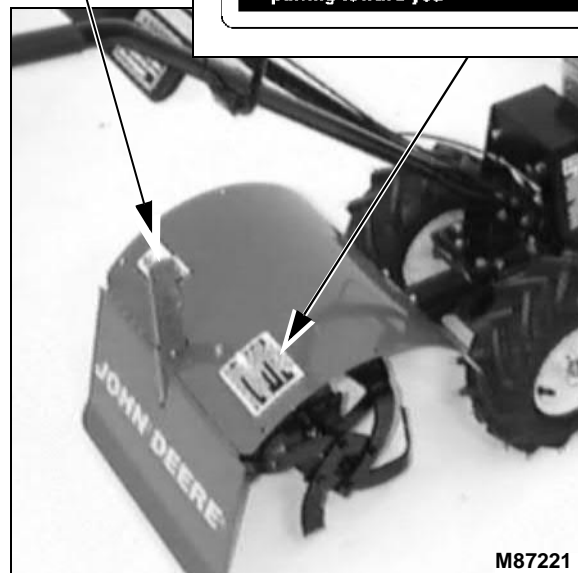
On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards. In this manual, the word CAUTION and this symbol call attention to safety messages.



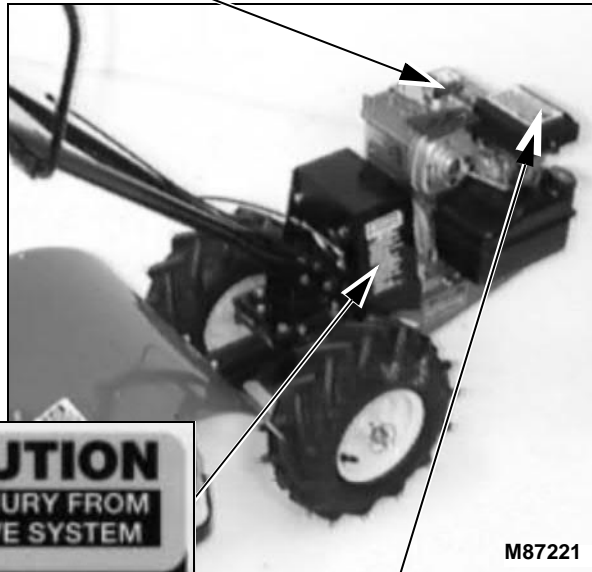
## Machine Safety Labels



# SAFETY SIGNS



# SAFETY SIGNS



## SAFETY SIGNS

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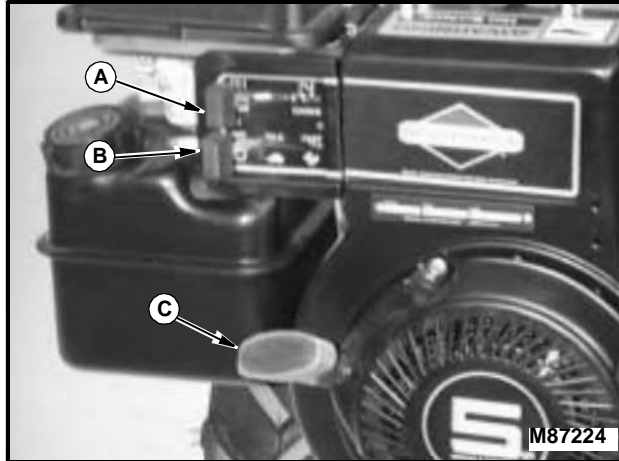
This OPEI label on your tiller indicates that this model has been certified by an independent laboratory for compliance with American National Standard B-71.8-1996, "Safety Specifications" for Tillers.



# CONTROLS

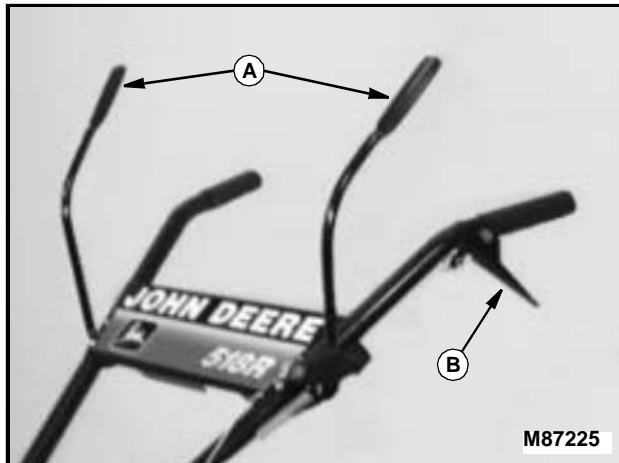
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## Engine Controls



- A - Choke Lever ..... Chokes fuel system for starting engine
- B - Throttle Lever ..... Controls engine speed
- C - Starter Handle ..... Pull to start engine

## Handlebar Controls



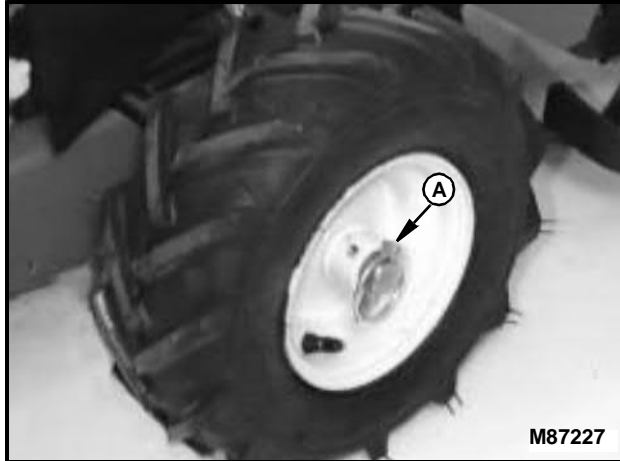
- A - Main Clutch (Forward Levers) ..... Controls forward drive
- B - Main Clutch (Reverse Lever) ..... Controls reverse drive

# CONTROLS

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## Drive Controls



A - Wheel Hub Drive Pins ..... Locks/Unlocks wheel to axle

# OPERATING

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## SAFETY



### Operate Safely

- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure all safety protective devices are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Clear work area of objects that might be thrown. 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.
- Be sure of footing. Be especially careful when you pull machine backwards with the engine running.
- Stay behind the barrier on the handlebar when operating on the side of the machine.
- DO NOT attempt to force the tines down by hanging on the handlebar.
- Till across a hill - not up and down. Be careful when you change direction on a slope. DO NOT till excessively steep slopes.
- Keep a firm hold on the machine handle.
- Do not wear radio or music headphones while operating the machine. Safe operation requires your full attention.

## OPERATING

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### **Rotating Tines are Dangerous - Protect Children and Prevent Accidents**



#### PROTECT CHILDREN:

- Never assume that children will remain where you last saw them. Stay alert to the presence of children.
- Keep children in the house when you are operating the machine.
- Turn machine off if a child enters the area.
- Use extra care when you come to blind corners, or other objects that may block your vision.
- DO NOT let children or an untrained person operate the machine.

#### HELP PREVENT SERIOUS OR FATAL ACCIDENTS:

- Be alert at all times, people especially children can move quickly into the area before you know it.
- Stop the tines when crossing gravel drives, walks, or roads.
- Shut off tiller when you are not tilling.
- Keep hands, feet, and clothing away from rotating tines.

### **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.
- DO NOT operate the equipment when barefoot or wearing open sandals. Always wear substantial footwear.

# OPERATING

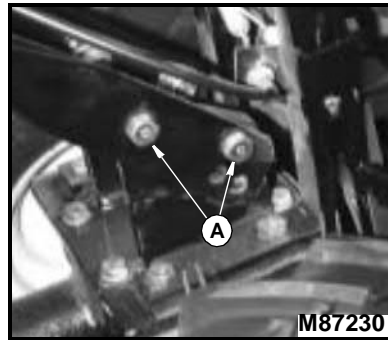
## ADJUSTMENTS

### Adjust Handlebar Height

Adjust handlebar height by using three holes at bottom of handlebar legs.

Remove cap screws, locknuts and washers (A) and position handlebars at a safe comfortable tilling height.

Align holes and secure with cap screws, locknuts and washers.



### Adjust Tilling Depth

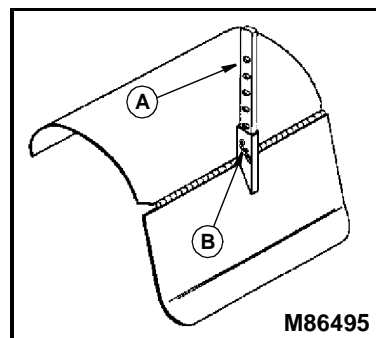
**C CAUTION: DO NOT** adjust tilling depth with tines rotating. Place Main Clutch in “NEUTRAL” before changing tilling depth.

**IMPORTANT: DO NOT** overload tiller by attempting to till too deep at too fast a rate.

Tilling depth is controlled by changing the depth control stick position.

**NOTE: Tilling depth will vary with ground conditions. Depth stick increases drag when point is installed forward.**

Raise the depth stick (A) to increase the tilling depth. The depth stick is retained at the chosen position by a clevis pin and hairpin (B).



# OPERATING

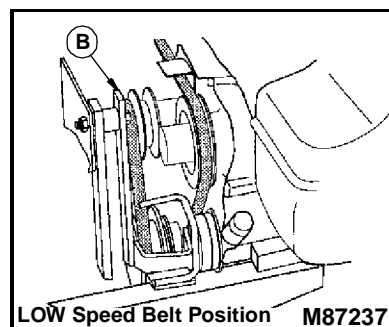
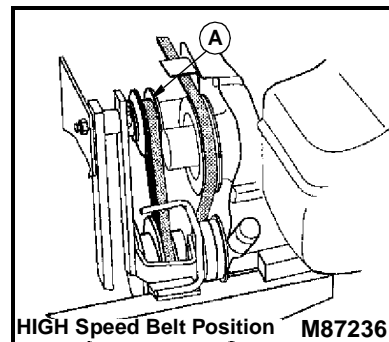
## Adjust Ground and Tine Speed

- C** **CAUTION:**
- **DO NOT** remove belt cover shield while engine is running.
  - Engine and drive parts will be hot after operation.
  - Release all levers, stop engine and disconnect spark plug wire before adjusting speed.

**NOTE:** Tiller comes with Drive Belt in low speed groove of pulley. Low speed is best for heavy tilling. Moving belt to high speed groove allows faster tine and wheel speed for shallow cultivating or breaking up last bits of soil in final pass.

To change speeds, drive belts are shifted from one sheave groove to the other groove.

1. Remove spark plug wire.
2. Release levers to "NEUTRAL" position.
3. Remove nuts on belt guard and take guard off unit.
4. To INCREASE ground and tine speed: Begin movement of belt onto TOP of FRONT sheave (A) and pull starter rope. Continuous short pulls will work belt onto upper and lower sheaves.
5. To DECREASE ground and tine speed: Manually move belt to REAR sheave (B) on TOP and then on BOTTOM.
6. Install belt guard.
7. Connect spark plug wire.



# OPERATING

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## OPERATING

### Using Wheel Drive

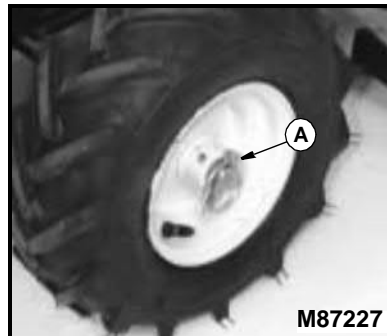
**C**

- CAUTION:**
- **AVOID LOSS OF CONTROL:** DO NOT operate tines with wheel hub drive pins disengaged.
  - **HELP AVOID INJURY:** When starting engine, Make sure axle drive pins are engaged in wheel hubs.
  - Disengage wheel hub drive pins only when tiller is transported or not in use.

**NOTE:** Wheels hold tiller back while tines are digging.

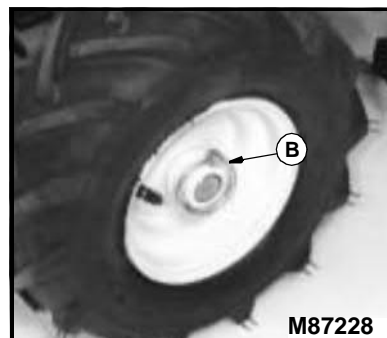
#### DISENGAGE Wheel Drives:

- Remove drive pin (A).
- Push wheel in and install drive pin (A) into hole in axle shaft.
- Lock drive pin by putting locking ring over axle shaft.
- Repeat for other wheel.
- Drive wheels are now disengaged from axles and tiller may be moved by hand without engine power.



#### ENGAGE Wheel Drives:

- Remove drive pin (B).
- Align hole in wheel hub with hole in axle shaft.
- Install drive pin (B), through wheel hub and axle shaft.
- Lock drive pin by putting locking ring over wheel hub and axle shaft.
- Repeat for other wheel.



If drive wheels are squeaking or difficult to move on the drive

## **OPERATING**

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axles, see Lubricating Drive Wheels in the Service section.



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# OPERATING

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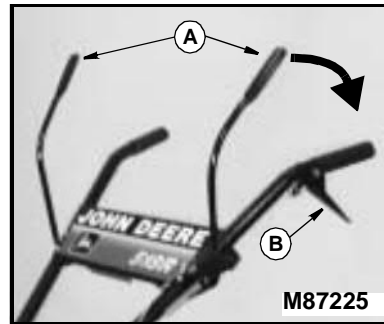
## Using Main Clutch

C

- CAUTION:**
- **DO NOT** engage machine travel unless Wheel Hub Drive Pins are engaged. Tiller may run away propelled on the high speed tines.
  - Avoid injury to feet. Keep feet away from around tine guard when the tiller is traveling in REVERSE.

### Forward:

- Pull “F” Top Levers (A) down to the handlebars. In this position, when the engine is running, the tiller tines will start spinning and the drive wheels will turn.
- The “F” Top Levers are one piece and can be operated with one hand. It is advised to operate this unit with both hands whenever possible.



- If forward drive is sluggish or will not fully engage. See Adjusting “Forward” Drive Belt Tension in the Service section.

### “N” neutral:

- Both “F” Top Levers (A) and “R” Bottom Lever (B) are spring loaded to the “N” neutral position. The tiller will STOP.
- Use this “N” position when starting the engine.

### Reverse:

- Release “F” Top Lever (A) before engaging “R” Bottom Lever (B).
- Pull “R” Bottom Lever (B) up to the handlebars. In this position, when the engine is running, the tiller tines and the drive wheels will start spinning in reverse.
- If reverse drive is sluggish or will not fully engage. See Adjusting “Reverse” Drive Belt Tension in the Service section.

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