

# **180A & 220A Walk-Behind Greensmower**

**(Serial No. 030001 – )**

## **OPERATOR'S MANUAL**

**John Deere  
Lawn & Grounds Care Division  
OMMT6006 B8**

**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.



**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.

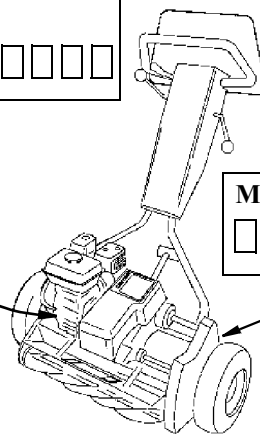
Measurements in this manual are metric units and their U.S. customary equivalents. RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow (--->) it indicates the part it is pointing to is hidden.

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.

<b>Date of Purchase:</b> _____	<b>Dealer Name:</b> _____	<b>Phone:</b> _____
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**Engine Serial Number:**  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

**Machine Serial Number:**  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □



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# SAFETY SIGNS

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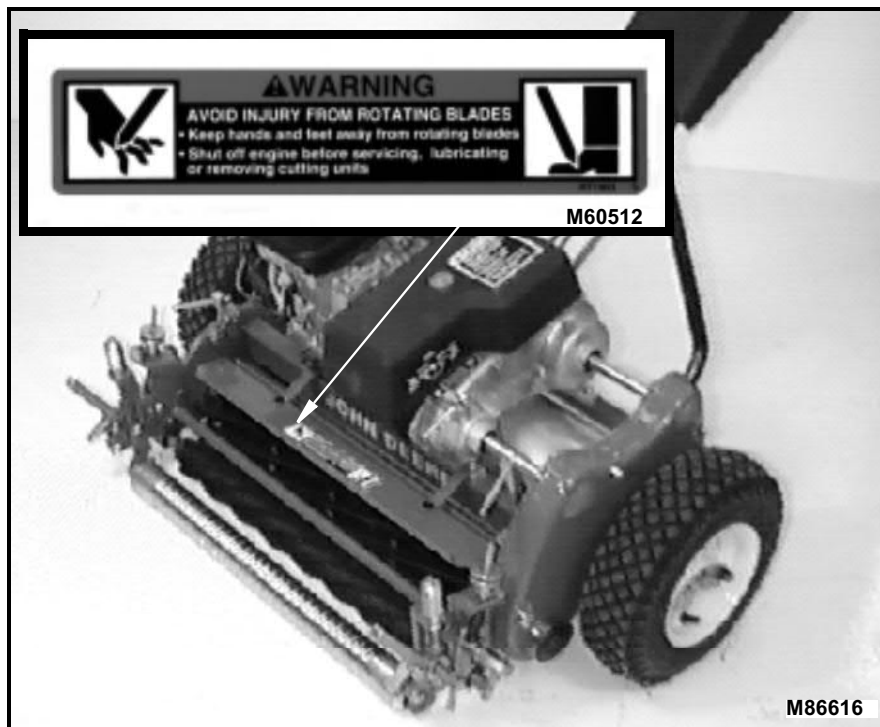
## Safety-Alert Symbol

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

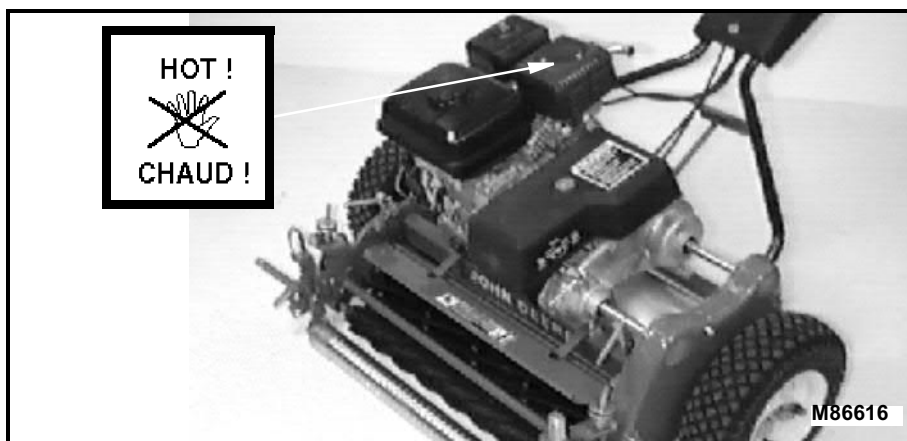
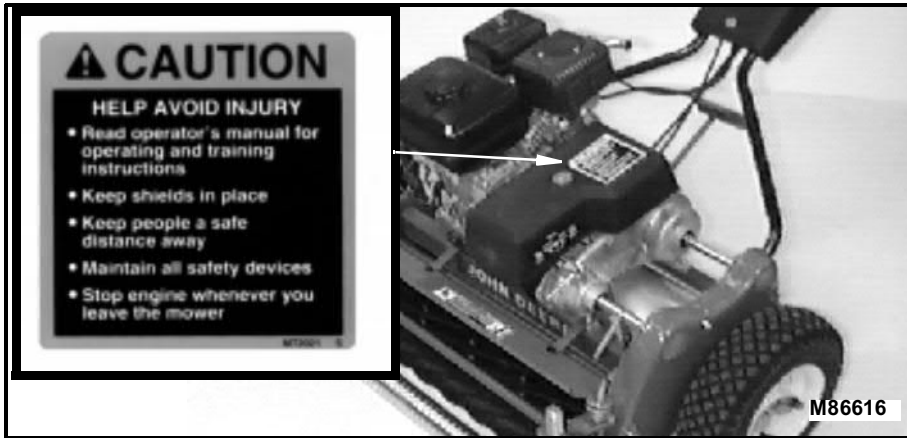
On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards. In this manual, the word CAUTION and this symbol call attention to safety messages.



## Machine Safety Labels

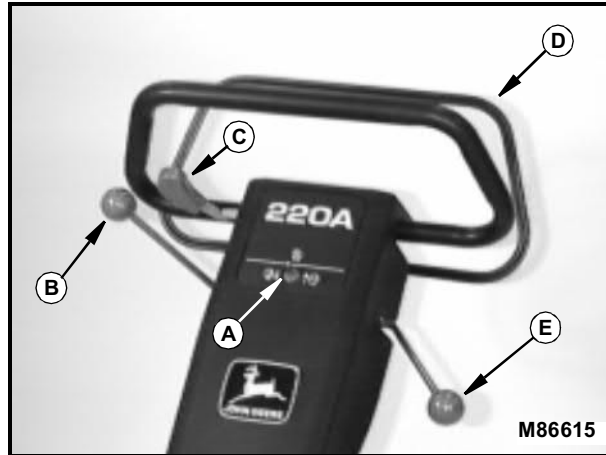


# SAFETY SIGNS

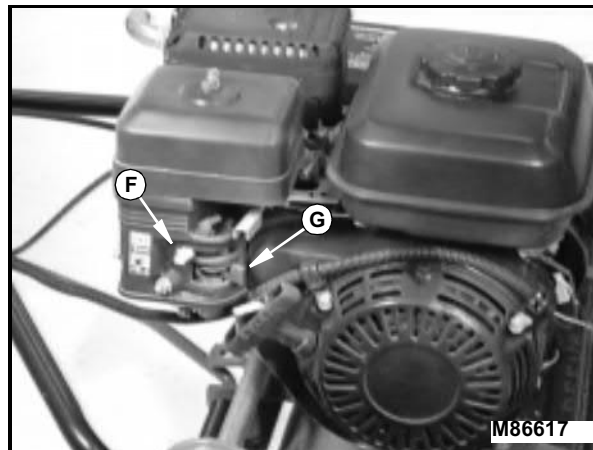


# CONTROLS

## Engine Controls



- A - Run/Off Switch.....Runs and stops engine.
- B - Travel Clutch Lever ..... Engages drive clutch.
- C - Throttle Lever .....Adjusts engine speed and rate-of-travel.
- D - Operator Presence Bail.....Stops all moving parts and engages drive clutch.
- E - Park Brake Lever ..... Stops reel from turning.



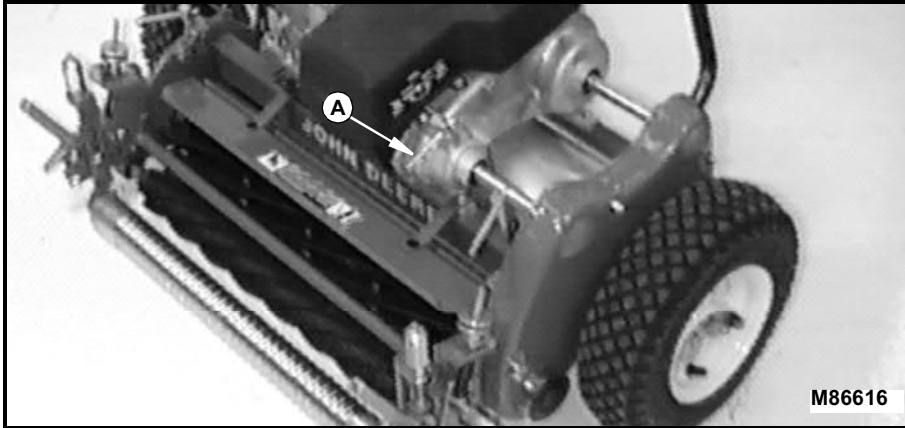
- F - Choke Lever.....Chokes engine for starting.
- G - Fuel Shut-Off.....Controls fuel supply to engine

# CONTROLS

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## Miscellaneous Controls



**A - Reel Clutch Handle .....Runs and stops reel.**



**B - GTC Knob .....Engages and disengages  
GTC.**

**Note: GTC stands for Greens Tender Conditioner**

# OPERATING THE MACHINE

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## Operate Safely

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



- 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. Keep all shields and guards in place.

- DO NOT leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.



M60512B

- Be sure of footing. Be especially careful when you pull machine backwards with the engine running.



M60512A

- Mow across a hill—not up and down. Be careful when you change direction on a slope.

- Keep a firm hold on the machine handle.

- Keep hands and feet away from moving parts. Do not touch spark plug cap or wire while engine is running.



M34187A

## **OPERATING THE MACHINE**

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### **Operate Safely (Continued)**

- Install or remove tires on level ground using stand.
- Disengage clutches and stop engine before making any adjustments or removing grass clippings or other objects from grass catcher.
- Always wear gloves when manually rotating reel.

### **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 wear radio or music headphones while operating the machine. Safe operation requires your full attention.



# OPERATING THE MACHINE

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## Using Run\Off Switch

Flip toggle switch (A) FORWARD to RUN engine.

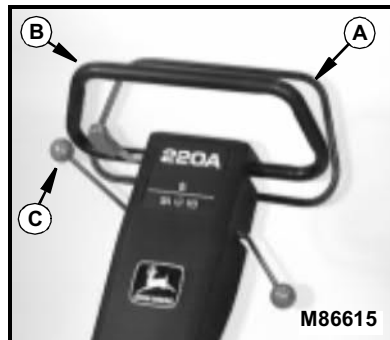
- Flip toggle switch (A) REARWARD (toward operator) to STOP engine.



## Using Operator Presence Bail

The operator presence bail (A) STOPS all moving parts when released.

The operator presence bail (A) permits ENGAGEMENT of the drive clutch (C) when squeezed with handlebar (B).



## OPERATING THE MACHINE

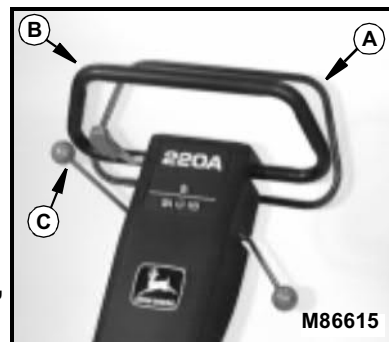
### Using Travel Clutch Lever (Forward Travel)



**CAUTION:** Reel will turn, if ENGAGED, when engine starts. Always DISENGAGE both reel and ground drive clutches before starting engine.

1. Hold bail (A) to handlebar (B).
2. Push clutch lever (C) FORWARD to ENGAGE drive clutch.
3. Release bail (A) to STOP travel.

**NOTE:** If adjustments are required, see **Adjusting Drive Belt in Service – Belt section and Adjusting Bail.**



### Using Park Brake Lever

Release bail (A) and pull brake lever (B) rearward to STOP reel.



## OPERATING THE MACHINE

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### Using Throttle Lever

Use throttle lever (A) to adjust engine speed and rate of travel.

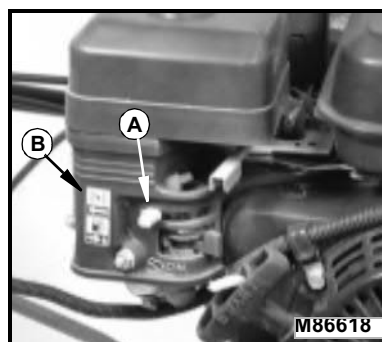
Pull lever (A) back (toward operator) to REDUCE engine speed.

Adjust throttle lever depending on rate of travel, cutting height, and ground contour.



### Using Choke Lever

Move choke lever (A) toward the decal (B) at right for the CHOKE position.



### Using Fuel Shut-Off Valve

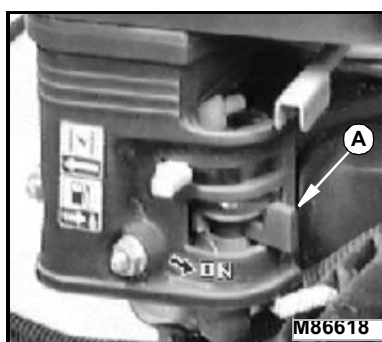
This unit is equipped with a 2-position fuel shut-off valve (A). Slide lever to the left or right to open or close the fuel shut-off valve.

#### **CLOSED (OFF) position:**

- When performing any type of engine service.
- When transporting.
- During storage.

#### **OPEN (ON) position:**

- Fuel shut-off valve must be in the full OPEN (ON) position for proper fuel delivery to the engine.



# OPERATING THE MACHINE

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## Using Reel Clutch Handle

**NOTE:** Use clutch handle (A) only when cutting.

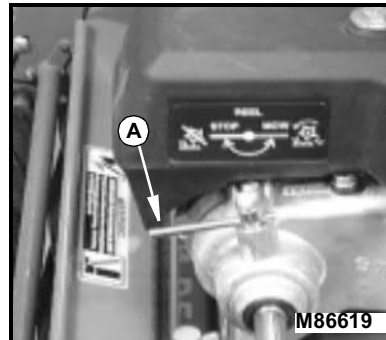
**Clutch MUST BE at STOP when transporting.**

**Never ENGAGE reel clutch when mower is moving.**

1. Clutch handle (A) points toward the HANDLEBAR when at RUN and toward REEL when at the STOP position.

2. Handle will turn 180 degrees from STOP to RUN. Do not turn past the detent positions.

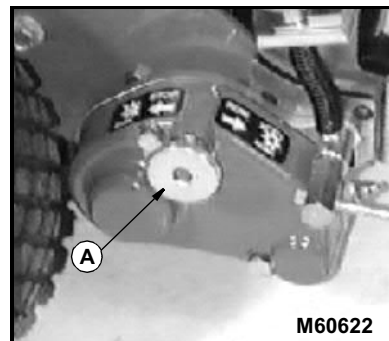
**NOTE:** Reel will turn only when travel clutch lever is ENGAGED and reel clutch handle is in the RUN position.



## Using Greens Tender Conditioner (GTC) Knob

Put knob (A) in the CLOCKWISE (DETENT) position for RUN.

Put knob (A) in the COUNTERCLOCKWISE (DETENT) position for OFF.



## OPERATING THE MACHINE

### Before Starting The Engine

1. Be sure engine is in a level position, if necessary, put a block under front roller to level engine.

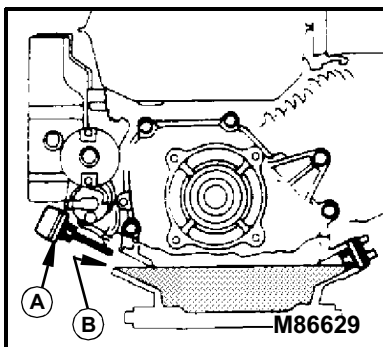
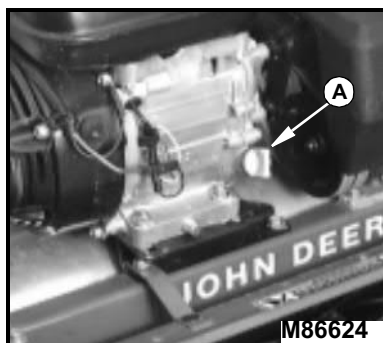
**NOTE: Do not screw dipstick into engine to check oil level.**

2. Remove dipstick (A), wipe clean, and insert into filler port.

3. If no oil or only a slight amount is seen, add to full level (B). Do not overflow. (For correct oil, see Engine Oil in the Service - Engine section.)

**Oil capacity: 0.6 L (0.6 U.S. qt).**

4. Wipe any spilled oil off mower.



**CAUTION:** Never add fuel while engine is running or hot.

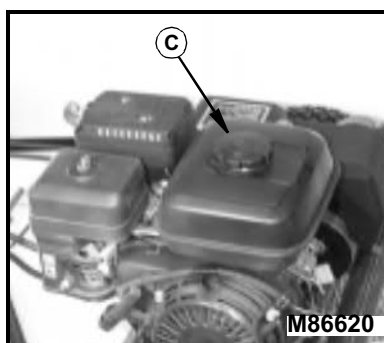
Do not refuel the machine while smoking or when near open flame or sparks.

Doing so can cause fire hazards.

**Fuel tank capacity: 2.5 L (2.6 U.S. qt).**

5. Remove fuel tank cap (C) and fill fuel tank.

6. Install fuel tank cap and tighten.



## OPERATING THE MACHINE

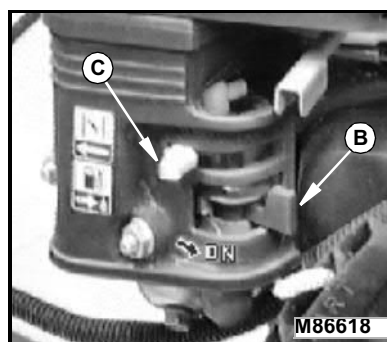
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### Starting The Engine

1. DISENGAGE reel and drive clutches before starting engine.
2. Push RUN/OFF switch (A) FORWARD to ON position.
3. Move throttle to HALF OPEN position.



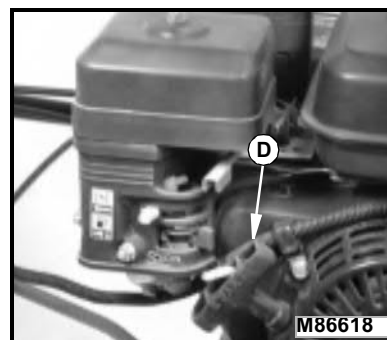
4. Turn fuel shut-off valve (B) to the ON position.
5. Set choke (C) at CLOSED position.



6. Pull starter handle (D).

**NOTE: If engine fails to start after three attempts, return choke to OPEN.**

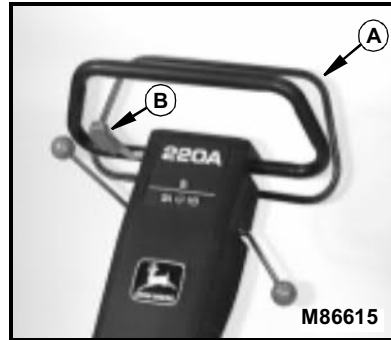
7. Move choke to OPEN position after engine has started.
8. Allow engine to warm up before applying load.



# OPERATING THE MACHINE

## Stopping The Engine

1. Release bail (A).
2. Pull throttle lever (B) all the way back (toward operator). Let engine idle 3–5 minutes to allow engine to cool down.



**NOTE:** If mower will not be used for a long period, close fuel shut-off valve (D) and leave RUN/OFF switch (C) in the RUN position.

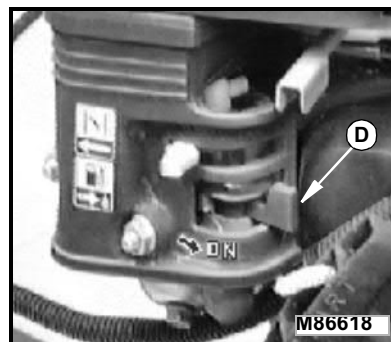
**Engine will continue to run for a few minutes.**

**After engine STOPS completely, pull RUN/OFF switch REARWARD (toward operator) to STOP position.**

3. Pull RUN/OFF switch (C) REARWARD (toward operator) to STOP engine.



4. Turn fuel shutoff valve (D) to the OFF position.



# OPERATING THE CUTTING UNIT

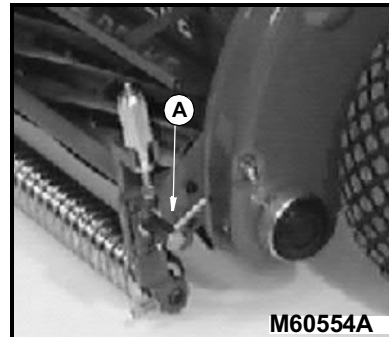
## Adjusting Cutting Height

**NOTE:** Always adjust bed knife to reel before adjusting cut height.



**CAUTION:** Stop engine and **DISENGAGE** reel and travel clutches before making any adjustments.

1. Loosen T-handle (A) on each side until adjusting bracket slides easily.



2. Loosen wing nut (B) and set gauge (C) to desired cutting height.

3. Place gauge (C) against bottom of front and rear rollers and bed knife cutting surface.

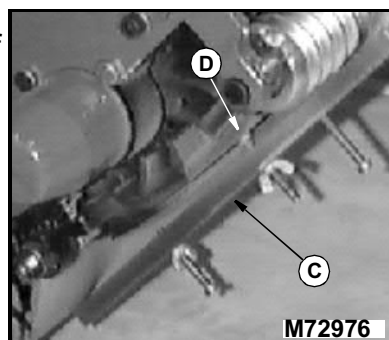
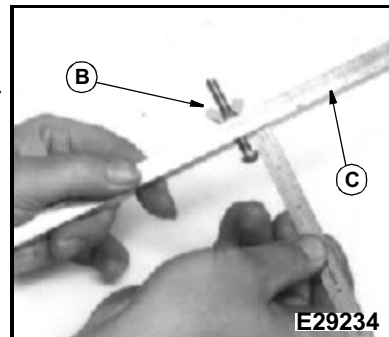
4. Move front roller up or down using adjusting knob.

5. Adjust height to gauge (C) by adjusting front roller until knife becomes slightly tight to underside of screw head (D).

6. Repeat on opposite side.

7. Check cutting height on both ends with gauge. Readjust height as necessary.

8. Tighten T-handles on both sides.



## OPERATING THE CUTTING UNIT

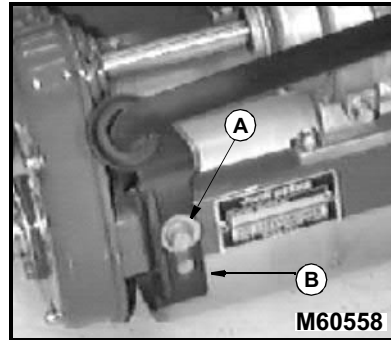
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### Adjusting Handlebar

The height of handlebar can be adjusted by loosening cap screw (A) on each side of machine.

Position handlebar to desired position and tighten cap screw (A).

**NOTE: Make sure bracket (B) is straight up and down, and not at an angle.**



### Adjusting Bed Knife-To-Reel



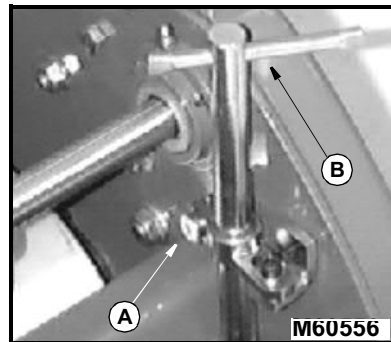
**CAUTION: Before using adjusting handle (B), STOP engine and DISENGAGE clutches.**

**NOTE: Reel must be free to turn by hand.**

1. To adjust clearance between knife and reel blades, loosen clamp screw (A) on both sides using a 6 mm allen wrench.

2. Turn adjusting handle (B) CLOCKWISE to DECREASE clearance.

- Turn adjusting handle (B) COUNTERCLOCKWISE to INCREASE clearance.



## OPERATING THE CUTTING UNIT

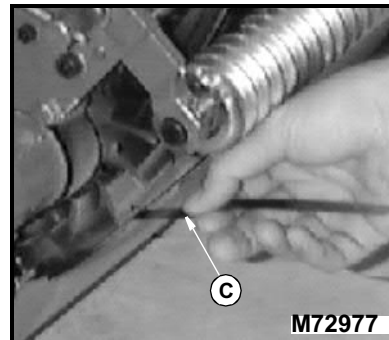
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**CAUTION:** Always wear gloves when manually rotating reel.

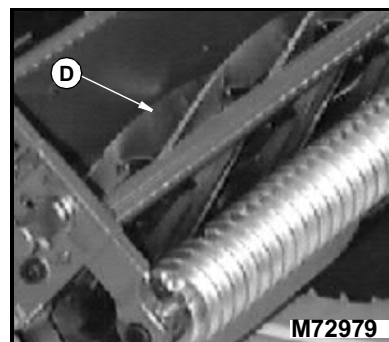
3. Adjust ends of reel to .001" with feeler gauge (C).
4. Now inspect the entire length of the bed knife with a .002" feeler gauge. It should not go in anywhere. If it does, go to Step 7.
5. If the reel is contacting anywhere, to to Step 6.



**CAUTION:** Always wear protective gloves when working on or near the reel or bed knife. Severe personal injury can result from contact with the sharp cutting edges.

**NOTE:** Always rotate the reel in the reverse direction to avoid damaging or dulling the cutting edges of the reel or bed knife.

6. Slowly rotate the reel (D) backwards watching for contact between the reel and bed knife at the center of the bed knife. If contact is made, backlap the reel and bed knife to eliminate the "Frown" in the bed knife or the out-of-round condition of the reel.





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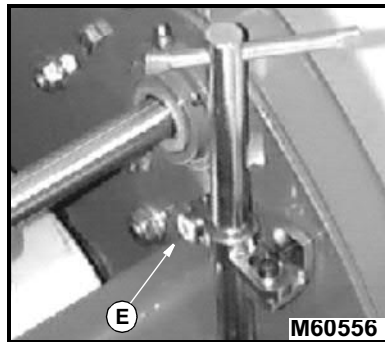
## OPERATING THE CUTTING UNIT

7. Measure the clearance at the center of the bed knife. If the clearance exceeds .002 of an inch, backlap the reel and bed knife to eliminate the “Smile” in the bed knife or the out-of-round condition of the reel.



8. When properly adjusted and sharpened, each reel blade should cut a piece of paper held at 90° to the top surface of the bed knife along the entire length of the bed knife with 0–.001” clearance.

9. Tighten clamp screw (E) on both sides.



**NOTE: Do not overtighten knife to reel. Overtightening can cause damage to knife or cutting edges.**

### Engaging Greens Tender Conditioner (GTC) Or Rotary Brush



**CAUTION: DISENGAGE clutches and STOP engine.**

1. Loosen T-handles (A) on each side.
2. Move slide block (B) so that adjusting knob (C) is setting on lower step.
3. Repeat for the other side.
4. Tighten T-handles (A) on each side.



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