



# Super Bagger Lawn Mower

Model No. 20197—Serial No. 310000001 and Up

Operator's Manual

## Introduction

This rotary-blade, walk-behind lawn mower is intended to be used by residential homeowners. It is designed primarily for cutting grass on well-maintained lawns on residential properties. It is not designed for cutting brush or for agricultural uses.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at [www.Toro.com](http://www.Toro.com) for product and accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. Figure 1 identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

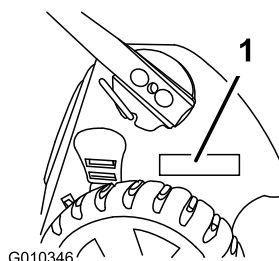


Figure 1

1. Model and serial number plate

Model No. _____
Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 2

1. Safety alert symbol

This manual uses two words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

### WARNING

#### CALIFORNIA Proposition 65 Warning

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

**Important:** This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land. Other states or federal areas may have similar laws.

This spark ignition system complies with Canadian ICES-002.

The enclosed *Engine Owner's Manual* is supplied for information regarding the US Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance, and warranty. Replacements may be ordered through the engine manufacturer.

For models with stated engine horsepower, the gross horsepower of the engine was laboratory rated by the engine manufacturer in accordance with SAE J1940. As configured to meet safety, emission, and operating requirements, the actual engine horsepower on this class of lawn mower will be significantly lower.

Do not tamper with the engine controls or alter the governor speed; doing so may create an unsafe condition resulting in personal injury.

# Safety

This lawn mower meets or exceeds the CPSC blade safety requirements for walk-behind rotary lawn mowers and the B71.1 specifications of the American National Standards Institute in effect at the time of production.

## Read and understand the contents of this manual before you start the engine.

The safety alert symbol (Figure 2) is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. Improperly using or maintaining this mower could result in injury or death. To reduce this potential, comply with the following safety instructions.

The following instructions have been adapted from the ANSI/OPEI standard B71.1-2003.

**This cutting machine is capable of amputating hands and feet and of throwing objects. Failure to observe the following safety instructions could result in serious injury or death.**

## General Operation

- Read, understand, and follow all instructions on the machine and in the manual(s) before starting.
- Do not put hands or feet near or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate this machine.
- Clear the area of objects such as rocks, wire, toys, etc., which could be thrown by the blade. Stay behind the handle when the engine is running.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Do not operate machine barefooted or while wearing sandals. Always wear substantial footwear.
- Do not pull machine backward unless absolutely necessary. Always look down and behind before and while moving backward.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, rear guard, or other safety protective devices in place and working.
- Never leave a running machine unattended.
- Stop the engine and wait until the blade comes to a complete stop before cleaning the machine,

removing grass catcher, or unclogging the discharge guard.

- Operate machine only in daylight or good artificial light.
- Do not operate machine while under the influence of alcohol or drugs.
- Never operate mower in wet grass. Always be sure of your footing; walk; never run.
- Disengage the drive system, if so equipped, before starting the engine.
- If the machine should start to vibrate abnormally, stop the engine and check for the cause immediately. Vibration is generally a warning of trouble.
- Always wear eye protection when operating machine.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.

## Slope Operation

Slopes are a major factor related to slip and fall accidents, which can result in severe injury. Operation on all slopes require extra caution. If you feel uneasy on a slope, do not mow it.

- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause a slip and fall accident. Tall grass can hide obstacles.
- Do not mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.
- Do not mow near drop-offs, ditches, or embankments. You could lose your footing or balance.

## Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. **Never** assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Be alert and turn mower off if a child enters the area.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

# Service

## Safe Handling of Gasoline

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never refuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or on other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before starting.
- Never make any adjustments or repairs with the engine running. Disconnect the spark plug wire and ground against engine to prevent unintended starting.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Do not change the engine governor setting or overspeed the engine.
- Maintain or replace safety and instruction labels, as necessary.

### **▲ WARNING**

**Exhaust contains carbon monoxide, an odorless, deadly poison that can kill you.**

**Do not run the engine indoors or in an enclosed area.**

## General Service

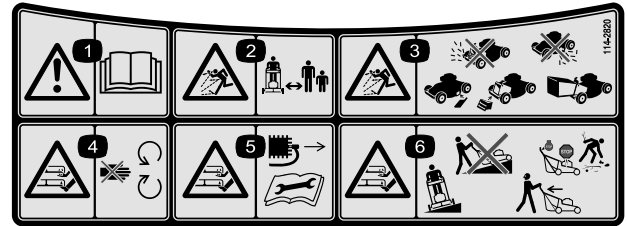
- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.

# Safety and Instructional Decals

**Important:** Safety and instruction decals are located near areas of potential danger. Replace damaged decals.

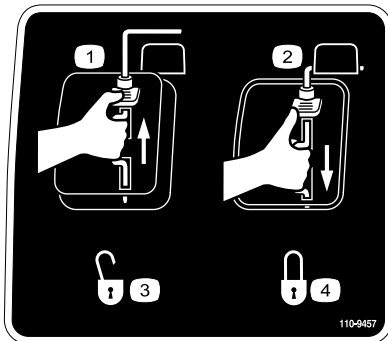


94-8072



114-2820

1. Warning—read the *Operator's Manual*.
2. Thrown object hazard—keep bystanders a safe distance from the machine.
3. Thrown object hazard—do not operate the mower without the rear discharge plug or bag in place; do not operate the mower without the side discharge cover or deflector in place.
4. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts.
5. Cutting/dismemberment hazard of hand or foot, mower blade—remove the ignition key and read the instructions before servicing or performing maintenance.
6. Cutting/dismemberment hazard of hand or foot, mower blade—do not operate up and down slopes; operate side to side on slopes; stop the engine before leaving the operating position; and look behind you when backing up.



110-9457

1. Engine switch Off
2. Engine switch On
3. Unlocked
4. Locked



117-5902

1. Handle Upright
2. Handle folded
3. Release foot switch to fold handle



119-3796

1. To engage the blade, press the button.
2. Pull back the bail to the handle.

# Setup

## 1

### Unfolding the Handle

#### No Parts Required

#### Procedure

1. Move the handle rearward and hold the upper handle in place (Figure 3).

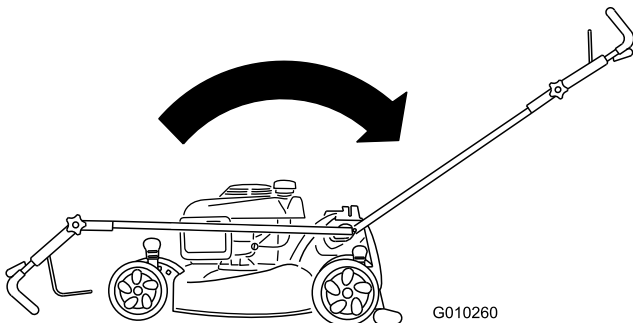


Figure 3

G010260

**Note:** The handle will click into position.

2. Tighten the upper handle knob as tight as you can (Figure 4).

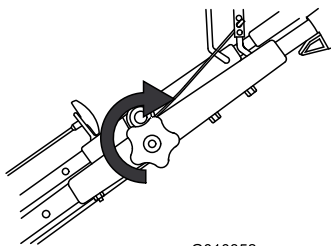


Figure 4

G010352

## 2

### Filling the Engine with Oil

#### Parts needed for this procedure:

0.58 quart (0.55 l)	SAE 30 detergent oil with an API service classification of SH, SJ, SL, or higher (not supplied with the mower).
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#### Procedure

**Important:** Your mower *does not* come with oil in the engine.

1. Remove the dipstick (Figure 5).

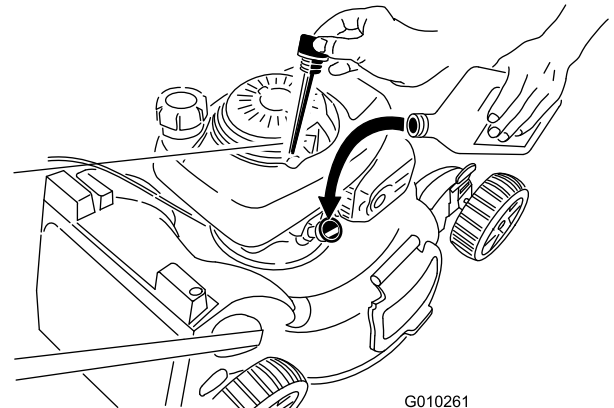
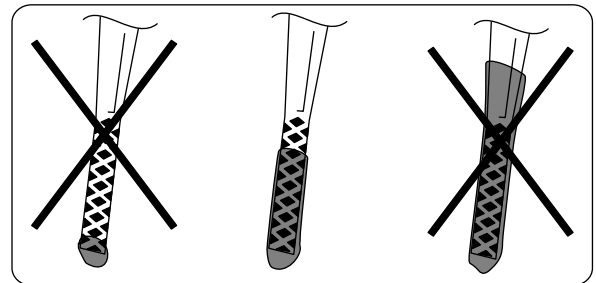


Figure 5

G010261

2. **Slowly** pour oil into the oil fill tube, periodically checking the level with the dipstick, until the dipstick indicates that the engine is full as illustrated in Figure 5. **Do not overfill.** (Max. fill: 0.58 quart (0.55 l), type: **SAE 30 detergent oil** with an API service classification of SH, SJ, SL, or higher.)

**Note:** Each time you check the oil level, remove the dipstick and wipe it clean, insert it into the oil filler neck (but do not screw it in), then remove it again and check the level (Figure 5).

**Note:** If you overfill the engine, pour some oil out of it as directed in Changing the Engine Oil.

3. Install the dipstick securely.

**Important:** *Change the engine oil after the first 5 operating hours; change it yearly thereafter. Refer to Changing the Engine Oil.*

# 3

## Install the Mulch Plug or Grass Bag

### No Parts Required

### Procedure

You must correctly install the mulch plug (for mulching or side-discharging) or grass bag (for bagging) or **the engine will not start**.

The mower has a safety switch, located at the bottom of a channel on the top, right rear of the mower, that prevents the mower from operating without a mulch plug or grass bag. This prevents the mower from throwing debris at the operator through the rear chute.

For the switch to detect the presence of the mulch plug, the top of the mulch plug lever must **lie fully** in the **bottom of the channel** (Figure 6).

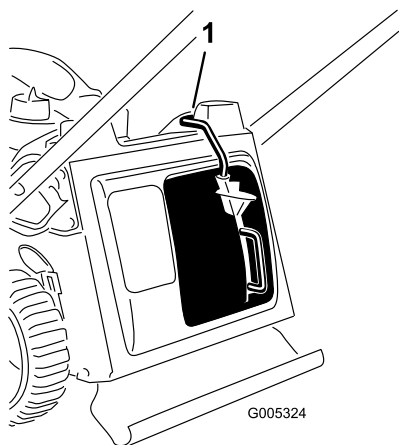
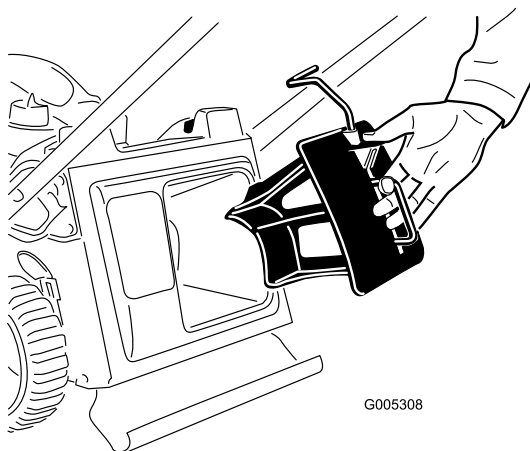


Figure 6

1. Top of mulch plug lever in switch channel

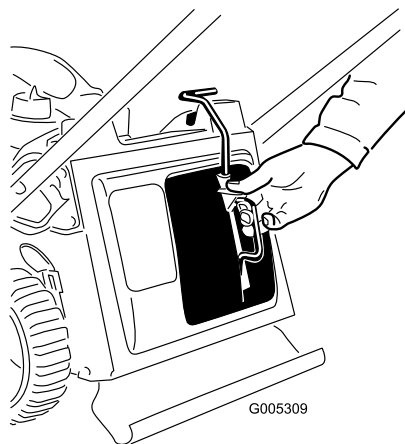
1. Insert the mulch plug into the mower, if it isn't already installed (Figure 7).



G005308

Figure 7

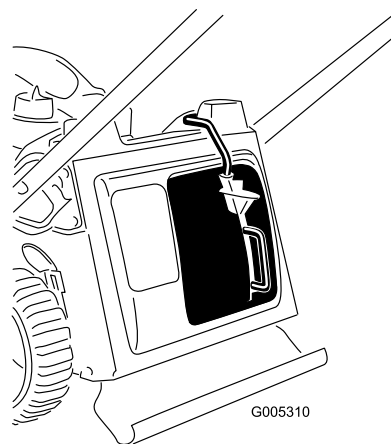
2. Squeeze the button on the lever with your thumb and fully insert the mulch plug into the opening (Figure 8).



G005309

Figure 8

3. Release the button on the lever and ensure that the top of the lever is lies fully in the switch channel (Figure 9). **If the top of the lever is not in the switch channel, your mower will not start!**

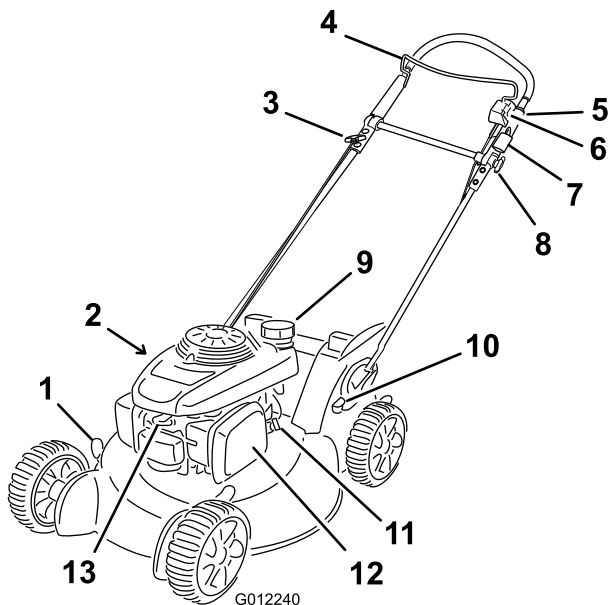


G005310

Figure 9

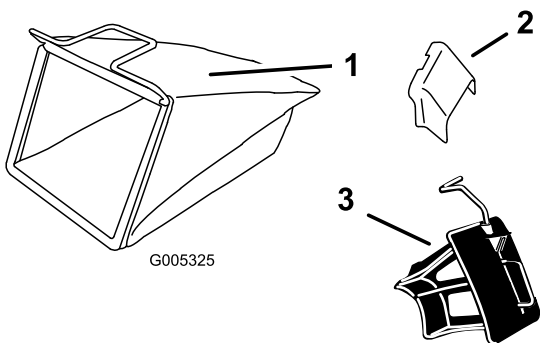
**Note:** If the lever does not latch properly, disconnect the wire from the spark plug and check for and remove any debris buildup in the tunnel.

## Product Overview



**Figure 10**

- |                                  |                      |
|----------------------------------|----------------------|
| 1. Cutting height lever          | 8. Upper handle knob |
| 2. Oil fill/Dipstick (not shown) | 9. Fuel tank cap     |
| 3. Recoil start handle           | 10. Foot pedal       |
| 4. Blade control bar             | 11. Fuel valve       |
| 5. Upper handle                  | 12. Air filter       |
| 6. Blade control button          | 13. Spark plug       |
| 7. Ignition switch               |                      |



**Figure 11**

- |                         |  |
|-------------------------|--|
| 1. Grass bag            | 3. Mulch plug (comes installed on the mower) |
| 2. Side discharge chute |  |

## Operation

### Filling the Fuel Tank

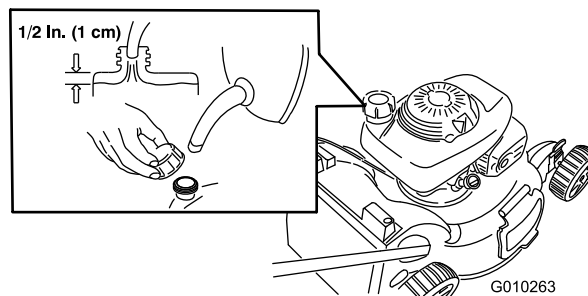
#### **⚠ DANGER**

Gasoline is extremely flammable and explosive. A fire or explosion from gasoline can burn you and others.

- To prevent a static charge from igniting the gasoline, place the container and/or mower directly on the ground before filling, not in a vehicle or on an object.
- Fill the tank outdoors when the engine is cold. Wipe up spills.
- Do not handle gasoline when smoking or around an open flame or sparks.
- Store gasoline in an approved fuel container, out of the reach of children.

Fill the fuel tank with fresh unleaded regular gasoline from a major name-brand service station (Figure 12).

**Important:** To reduce starting problems, add fuel stabilizer to the fuel all season, mixing it with gasoline less than 30 days old.



**Figure 12**

## Checking the Engine Oil Level

**Service Interval:** Before each use or daily

1. Remove the dipstick, wipe it clean, and insert it into the oil filler neck, **but do not screw it in** (Figure 13).

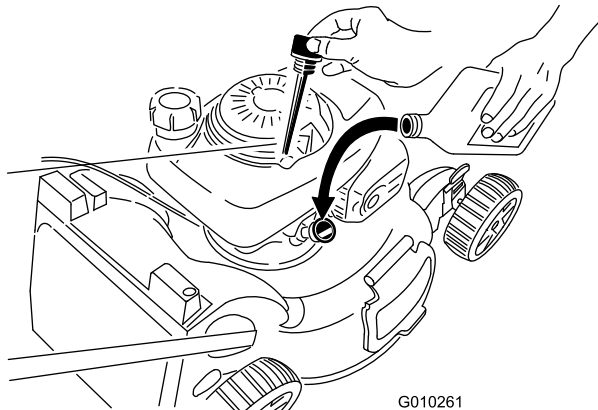
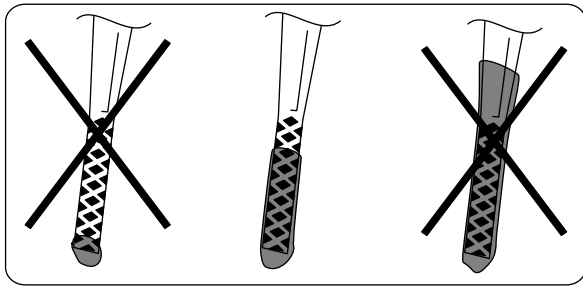


Figure 13

2. Remove the dipstick and check the oil level (Figure 13).

If there is no oil on the dipstick, **slowly** pour oil into the oil fill tube, periodically checking the level with the dipstick, until the dipstick indicates that the engine is full as illustrated in Figure 13. **Do not overfill.** (Max. fill: 0.58 quart (0.55 l), type: SAE 30 detergent oil with an API service classification of SH, SJ, SL, or higher.)

**Note:** If you overfill the engine, pour some oil out of it as directed in Changing the Engine Oil.

3. Install the dipstick securely.

## Adjusting the Cutting Height

### ⚠ WARNING

Adjusting the cutting height may bring you into contact with the moving blade, causing serious injury.

- Stop the engine and wait for all moving parts to stop.
- Do not put your fingers under the housing when adjusting the cutting height.

Adjust the cutting height as desired. Set all four wheels to the same height.

**Note:** To raise the mower, move all 4 cutting height levers forward; to lower the mower, move them rearward.

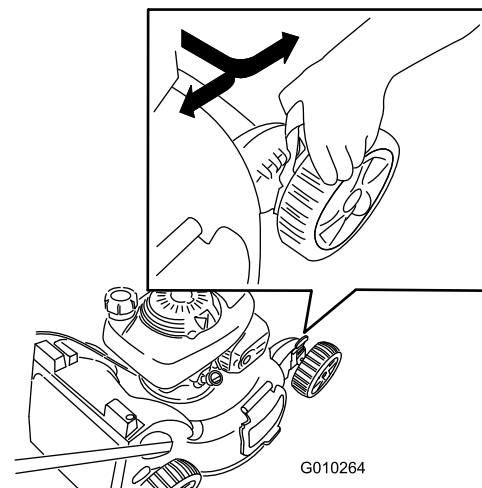


Figure 14

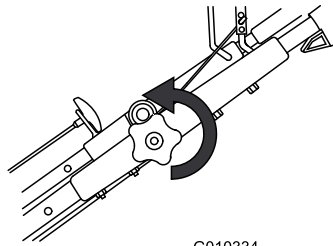


# Adjusting the Upper Handle Height

You may raise or lower the upper handle to a position comfortable for you.

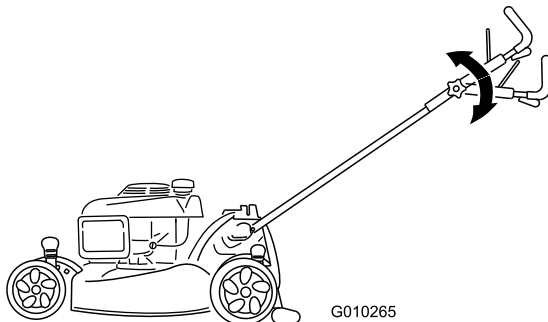
**Note:** You cannot raise the upper handle higher than the angle of the lower handle.

1. Loosen the upper handle knob (Figure 15).



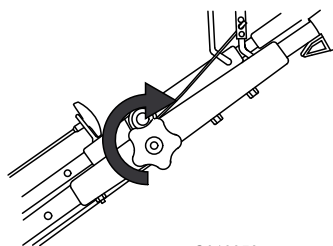
G010334  
**Figure 15**

2. Move the upper handle to the desired position (Figure 16).



G010265  
**Figure 16**

3. Tighten the upper handle knob as tight as you can (Figure 17).

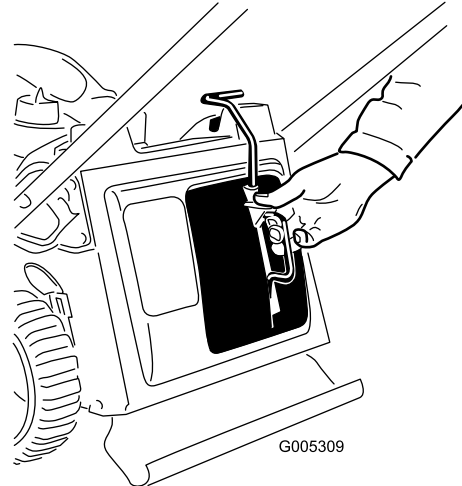


G010352  
**Figure 17**

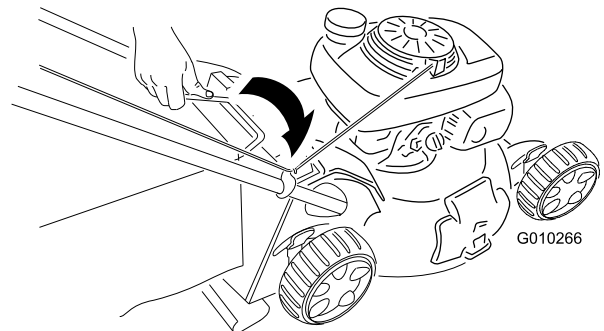
# Starting the Engine

**Important:** The mower has a safety switch that prevents you from starting the mower unless you first install the mulch plug or the grass bag securely on the mower.

1. Install the mulch plug (Figure 18) or the grass bag (Figure 19) on the mower.

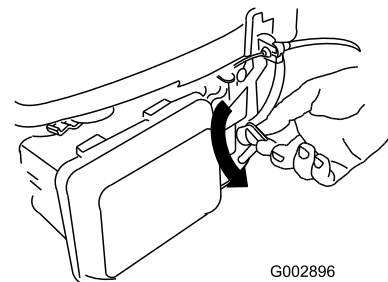


G005309  
**Figure 18**



G010266  
**Figure 19**

2. Turn the fuel valve lever to the On position (Figure 20).



G002896  
**Figure 20**

3. Pull the recoil starter (Figure 21).

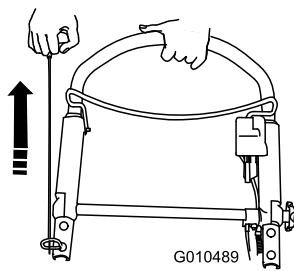


Figure 21

**Note:** If the mower still does not start, contact an Authorized Service Dealer.

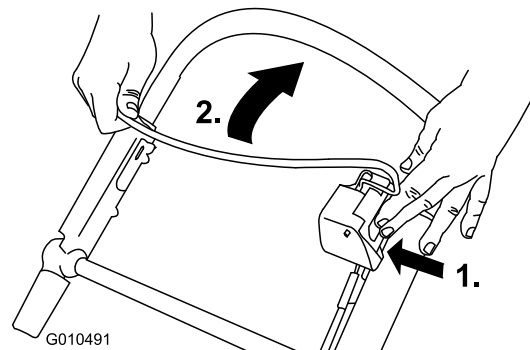


Figure 23

## Using the Self-propel Drive

To operate the self-propel drive, simply walk with your hands on the upper handle and your elbows at your sides, and the mower will automatically keep pace with you (Figure 22).

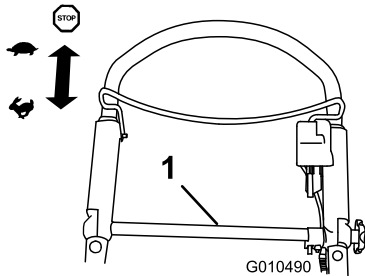


Figure 22

1. Nudge here

**Note:** If, when backing up after self-propelling, the mower does not roll backward freely, nudge the mower forward about an inch or two without engaging the self-propel drive (Figure 22), then pull the mower backward.

## Engaging the Blade

When you start the engine the blade does not turn. You must engage the blade to mow.

1. Push the blade control button and pull the blade control bar to the handle (Figure 23).

2. Hold the blade control bar against the handle (Figure 24).

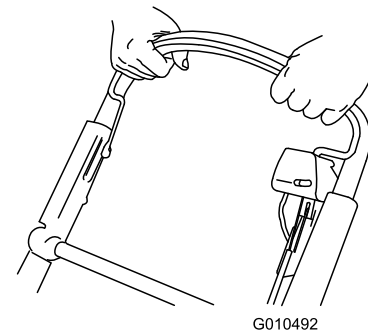


Figure 24

## Disengaging the Blade

Release the blade control bar (Figure 25).

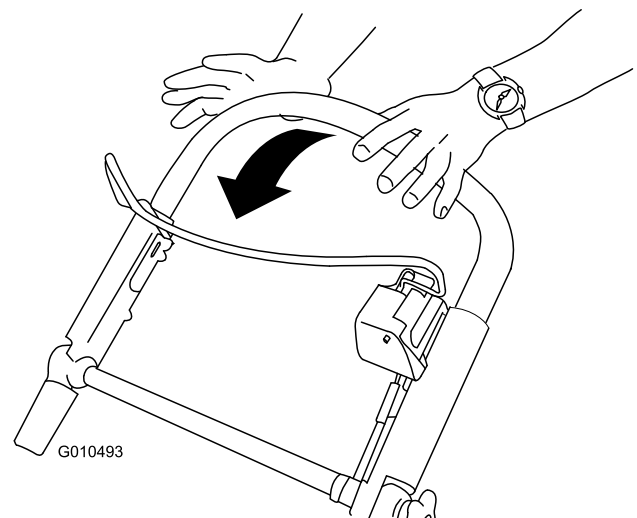


Figure 25

**Important:** When you release the blade control bar, the blade should stop within 3 seconds. If it does not stop properly, stop using your mower

immediately and contact an Authorized Service Dealer.

## Checking the Blade Brake Clutch Operation

Check the control bar before each use to ensure that the blade brake clutch system is operating properly.

### Using the Grass Bag

**Service Interval:** Before each use or daily

You can use the grass bag to perform an additional test to check the blade brake clutch mechanism.

1. Install the empty grass bag on the mower.
2. Start the engine.
3. Engage the blade.

**Note:** The bag should begin to inflate, indicating that the blade is engaged and rotating.

4. Release the blade control bar.

**Note:** If the bag does not immediately deflate, the blade is still rotating. The blade brake clutch mechanism may be deteriorating and, if ignored, could result in an unsafe operating condition. Have the mower inspected and serviced by an Authorized Service Dealer.

5. Stop the engine and wait for all moving parts to stop.

### Not Using the Grass Bag

1. Move the mower onto a paved surface in a non-windy area.
2. Set all 4 wheels to the 3 inch (76 mm) cut setting.
3. Take a half sheet of newspaper and crumple it into a ball small enough to go under the mower housing (about 3 inches or 76 mm in diameter).
4. Place the newspaper ball about 5 inches (13 cm) in front of the mower (Figure 26).

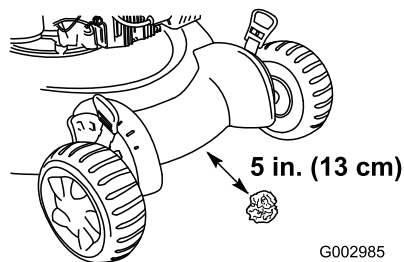


Figure 26

G002985

5. Start the engine.
6. Engage the blade.
7. Release the blade control bar.
8. Immediately push the mower over the newspaper ball.
9. Stop the engine and wait for all moving parts to stop.
10. Go to the front of the mower and check the newspaper ball.

**Note:** If the newspaper ball did not go under the mower, repeat steps 2 through 10.

11. If the newspaper is unravelled or shredded, the blade did not stop properly, which could result in an unsafe operating condition. Contact an Authorized Service Dealer.

## Stopping the Engine

**Service Interval:** Before each use or daily

Hold down the ignition switch in the Stop position until the engine stops.

**Important:** When you release the blade control bar, both the engine and blade should stop within 3 seconds. If they do not stop properly, stop using your mower immediately and contact an Authorized Service Dealer.

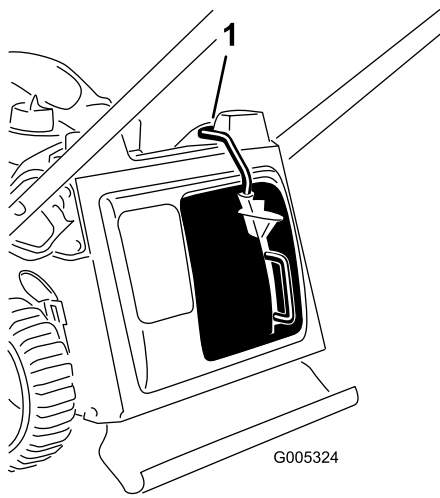
## Mulching the Clippings

Your mower comes from the factory ready to mulch the grass and leaf clippings back into the lawn.

If the grass bag is on the mower, remove it (refer to Removing the Grass Bag) before mulching the clippings. If the side discharge chute is on the mower, remove it and lock the side discharge door (refer to Removing the Side Discharge Chute) before mulching the clippings.

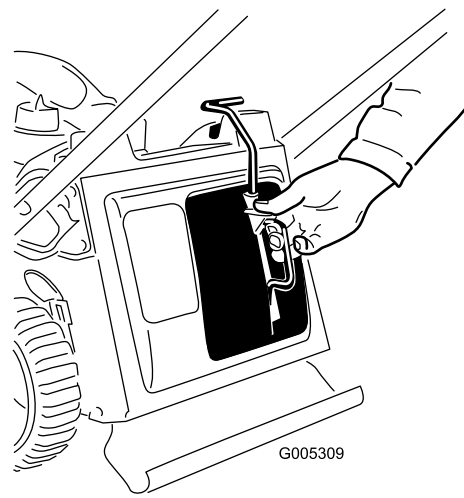
**Important:** The mower has a safety switch that prevents you from starting the mower unless you first install the mulch plug securely on the mower (Figure 27).

Install the mulch plug as illustrated in Figure 27.



**Figure 27**

1. Top of mulch plug lever in switch channel



**Figure 28**

2. Route the starter rope around the lower rope guide (Figure 29).

## Bagging the Clippings

Use the grass bag when you want to collect grass and leaf clippings from the lawn.

If the side discharge chute is on the mower, remove it and lock the side discharge door (refer to Removing the Side Discharge Chute) before bagging the clippings.

### **⚠ WARNING**

A worn grass bag could allow small stones and other similar debris to be thrown in the operator's or bystander's direction and result in serious personal injury or death to the operator or bystanders.

Check the grass bag frequently. If it is damaged, install a new Toro replacement bag.

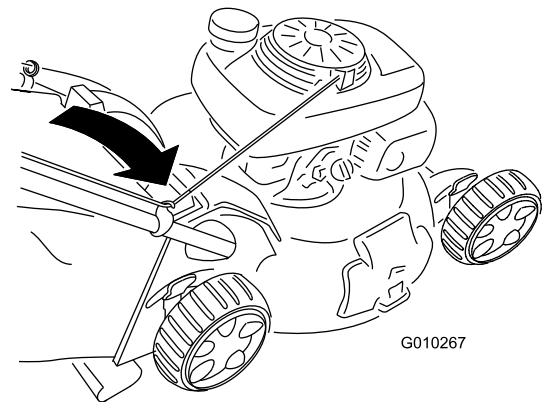
### **⚠ WARNING**

The blade is sharp; contacting the blade can result in serious personal injury.

Stop the engine and wait for all moving parts to stop before leaving the operating position.

## Installing the Grass Bag

1. Remove the mulch plug (Figure 28).

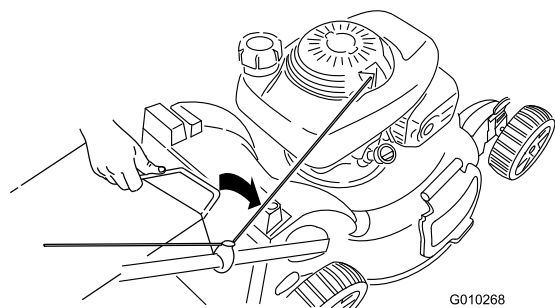


**Figure 29**

**Note:** The lower rope guide releases the starter rope when you pull the recoil start handle.

3. Insert the grass bag handle into the grooves at the top of the mower (Figure 30).

**Important:** The mower has a safety switch that prevents you from starting the mower unless you first install the grass bag securely on the mower.



**Figure 30**

## Removing the Grass Bag

1. Route the starter rope around the lower rope guide (Figure 31).

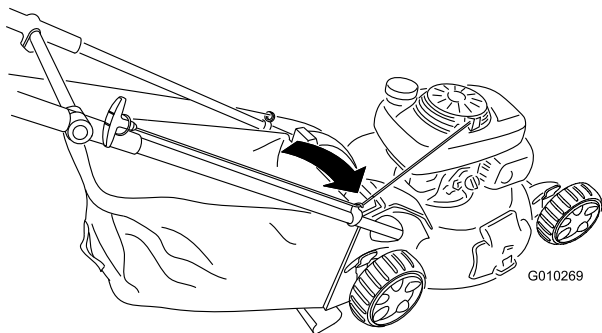


Figure 31

2. Lift the grass bag handle out from the grooves at the top of the mower and remove the bag from the mower (Figure 32).

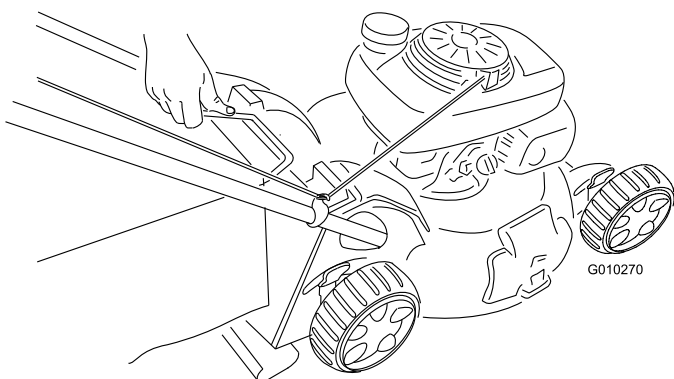


Figure 32

3. Insert the mulch plug (Figure 33).

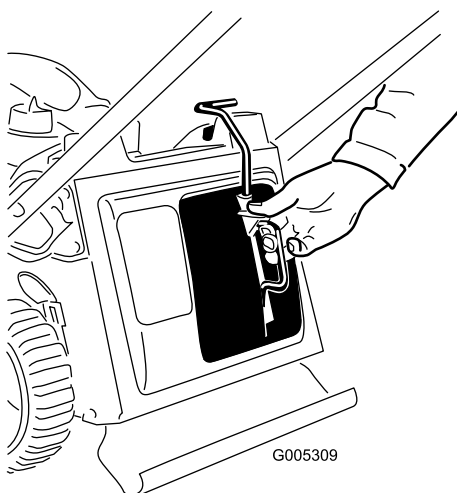


Figure 33

## Side-discharging the Clippings

Use the side discharge for cutting very tall grass.

If the bag is on the mower, remove it and insert the mulch plug (refer to Removing the Grass Bag) before side-discharging the clippings.

**Important:** The mower has a safety switch that prevents you from starting the mower unless you first install the mulch plug securely on the mower (refer to Mulching the Clippings).

## Installing the Side Discharge Chute

1. Unlock the side discharge door (Figure 34).

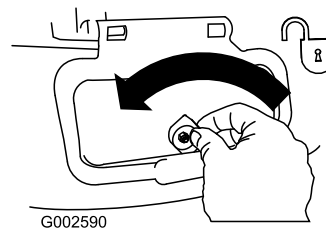


Figure 34

2. Lift open the side discharge door (Figure 35).

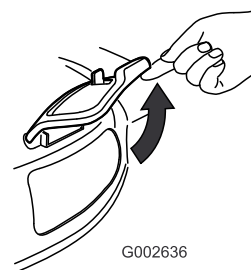


Figure 35

3. Install the side discharge chute and close the door onto the chute (Figure 36).

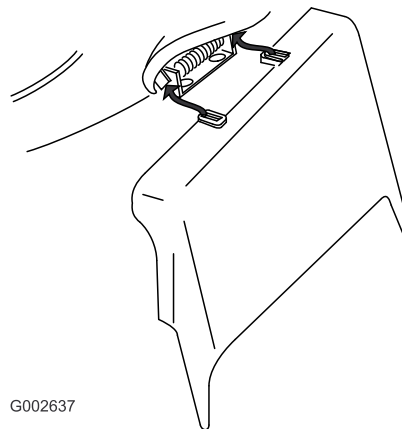


Figure 36

## Removing the Side Discharge Chute

To remove the side discharge chute, reverse the steps above.

**Important:** Lock the side discharge door after you close it (Figure 37).

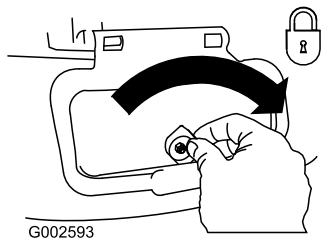


Figure 37

## ▲ WARNING

**Wet grass or leaves can cause serious injury if you slip and contact the blade. Mow only in dry conditions.**

- Alternate the mowing direction. This helps disperse the clippings over the lawn for even fertilization.
- If the finished lawn appearance is unsatisfactory, try one or more of the following:
  - If the blade is dull or nicked, replace it or have it sharpened.
  - Walk at a slower pace while mowing.
  - Raise the cutting height on your mower.
  - Cut the grass more frequently.
  - Overlap cutting swaths instead of cutting a full swath with each pass.
  - Set the cutting height on the front wheels one notch lower than the rear wheels. For example, set the front wheels at 2 inches (51 mm) and the rear wheels at 2-1/2 inches (64 mm).

## Operating Tips

### General Mowing Tips

- Clear the area of sticks, stones, wire, branches, and other debris that the blade could hit.
- Avoid striking solid objects with the blade. Never deliberately mow over any object.
- If the mower strikes an object or starts to vibrate, immediately stop the engine, disconnect the wire from the spark plug, and examine the mower for damage.
- For best performance, install a new blade before the cutting season begins.
- Replace the blade when necessary with a Toro replacement blade.

### Cutting Grass

- Cut only about a third of the grass blade at a time. Do not cut below the 2 inch (51 mm) setting unless the grass is sparse or it is late fall when grass growth begins to slow down. Refer to Adjusting the Cutting Height.
- When cutting grass over 6 inches (15 cm) tall, mow at the highest cutting height setting and walk slower; then mow again at a lower setting for the best lawn appearance. If the grass is too long, the mower may plug and cause the engine to stall.
- Mow only dry grass or leaves. Wet grass and leaves tend to clump on the yard and can cause the mower to plug or the engine to stall.

### Cutting Leaves

- After cutting the lawn, ensure that half of the lawn shows through the cut leaf cover. You may need to make more than one pass over the leaves.
- If there are more than 5 inches (13 cm) of leaves on the lawn, set the front cutting height one or two notches higher than the rear cutting height.
- Slow down your mowing speed if the mower does not cut the leaves finely enough.

# Maintenance

**Note:** Determine the left and right sides of the machine from the normal operating position.

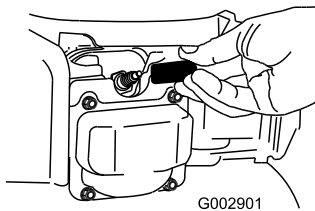
## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 5 hours	<ul style="list-style-type: none"> <li>• Change the engine oil.</li> </ul>
Before each use or daily	<ul style="list-style-type: none"> <li>• Check the engine oil level.</li> <li>• Check the blade brake clutch operation.</li> <li>• Ensure that the engine stops within 3 seconds after releasing the blade control bar.</li> <li>• Check the air cleaner for dirt and /or damage and clean or replace it if necessary.</li> <li>• Clean grass clippings and dirt from under the mower.</li> </ul>
Every 25 hours	<ul style="list-style-type: none"> <li>• Clean the blade brake clutch shield.</li> </ul>
Before storage	<ul style="list-style-type: none"> <li>• Empty the fuel tank before repairs as directed and before annual storage.</li> </ul>
Yearly	<ul style="list-style-type: none"> <li>• Clean the air filter (more frequently in dusty operating conditions).</li> <li>• Change the engine oil.</li> <li>• Lubricate the upper handle.</li> <li>• Replace the blade or have it sharpened (more frequently if the edge dulls quickly).</li> <li>• Refer to your Engine Operator's Manual for any additional yearly maintenance procedures.</li> </ul>

**Important:** Refer to your *Engine Operator's Manual* for additional maintenance procedures.

## Preparing for Maintenance

1. Stop the engine and wait for all moving parts to stop.
2. Disconnect the spark plug wire from the spark plug (Figure 38) before performing any maintenance procedure.



**Figure 38**

3. After performing the maintenance procedure(s), connect the spark plug wire to the spark plug.

**Important:** Before tipping the mower to change the oil or replace the blade, allow the fuel tank to run dry through normal usage. If you must tip the mower prior to running out of fuel, use a hand fuel pump to remove the fuel. Always tip the mower onto its side with the air filter up.

### **▲ WARNING**

Tipping the mower may cause the fuel to leak. Gasoline is flammable, explosive and can cause personal injury.

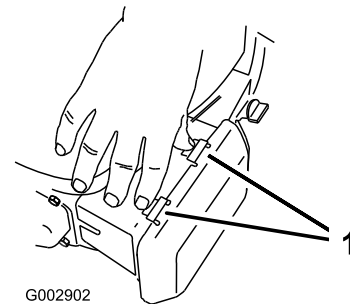
Run the engine dry or remove the gasoline with a hand pump; never siphon.

## Servicing the Air Cleaner

**Service Interval:** Before each use or daily

Yearly

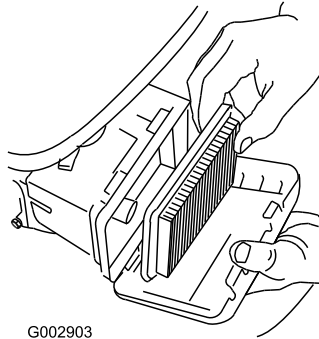
1. Press down on the latch tabs on top of the air cleaner cover (Figure 39).



**Figure 39**

1. Latch tabs
- 
2. Open the cover.

3. Remove the air filter (Figure 40).



**Figure 40**

4. If the air filter is damaged or is wet with oil or fuel, replace it.
5. If the air filter is dirty, tap it on a hard surface several times or blow compressed air less than 30 psi (207 kPa) through the side of the filter that faces the engine.

**Note:** Do not brush the dirt off the filter; brushing forces dirt into the fibers.

6. Remove dirt from the air cleaner body and cover using a moist rag. **Do not wipe dirt into the air duct.**
7. Install the filter into the air cleaner.
8. Close the cover.

## Changing the Engine Oil

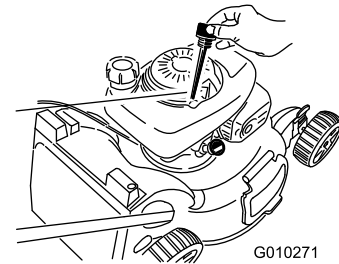
**Service Interval:** After the first 5 hours

Yearly

**Change the engine oil after the first 5 operating hours;** change it yearly thereafter.

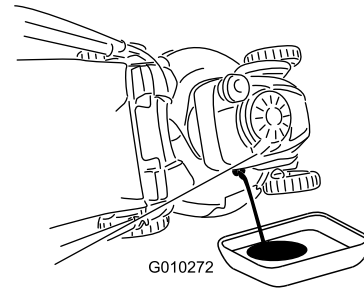
Run the engine a few minutes before changing the oil to warm it. Warm oil flows better and carries more contaminants.

1. Perform the pre-maintenance procedures; refer to Preparing for Maintenance.
2. Turn the fuel valve to the Off position to prevent any fuel leakage.
3. Remove the dipstick (Figure 41).



**Figure 41**

4. Tip the mower onto its side, with the air filter up, to drain the used oil out through the oil fill tube (Figure 42).



**Figure 42**

5. **Slowly** pour oil into the oil fill tube, periodically checking the level with the dipstick, until the dipstick indicates that the engine is full as illustrated in Figure 43. **Do not overfill.** (Max. fill: 0.58 quart (0.55 l), type: SAE 30 detergent oil with an API service classification of SH, SJ, SL, or higher.)

**Note:** Each time you check the oil level, remove the dipstick and wipe it clean, insert it into the oil filler neck (but do not screw it in), then remove it again and check the level (Figure 43).

**Note:** If you overfill the engine, pour some oil out of it.



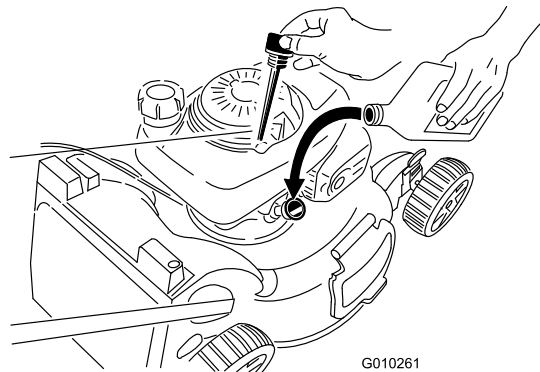
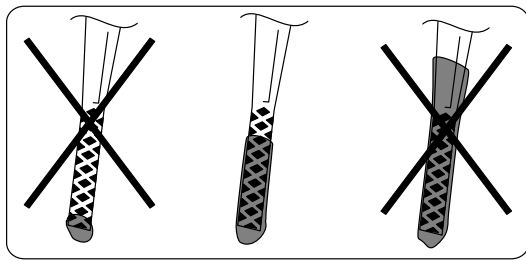


Figure 43

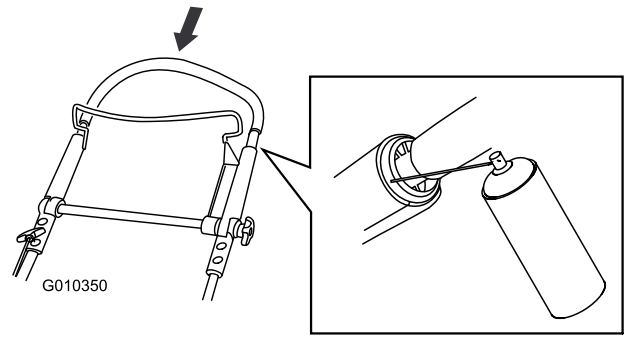


Figure 45

## Adjusting the Self-propel Drive

If your mower does not self-propel properly, adjust the self-propel drive cable.

1. Loosen the nut on the cable mount (Figure 46).

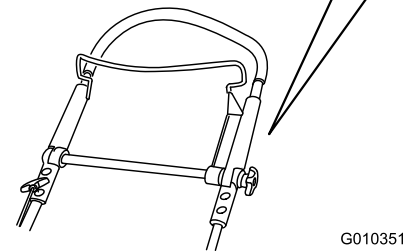
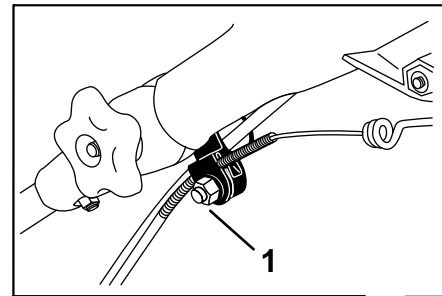


Figure 46

1. Cable mount

2. Pull the upper handle back fully rearward.

**Note:** If the handle does not move smoothly, refer to Lubricating the Upper Handle.

3. Pull the cable jacket downward until you remove the slack in the exposed cable (Figure 47).

6. Install the dipstick securely.

7. Dispose of the used oil properly at a local recycling center.

## Lubricating the Upper Handle

**Service Interval:** Yearly

Lubricate the left and right sides of the upper handle with a low-viscosity silicone spray lubricant yearly or as needed.

1. Spray the outer plastic end of the inner handle (Figure 44).

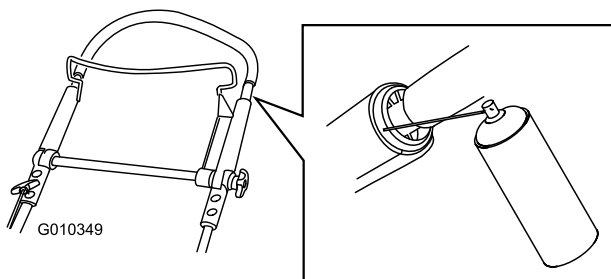
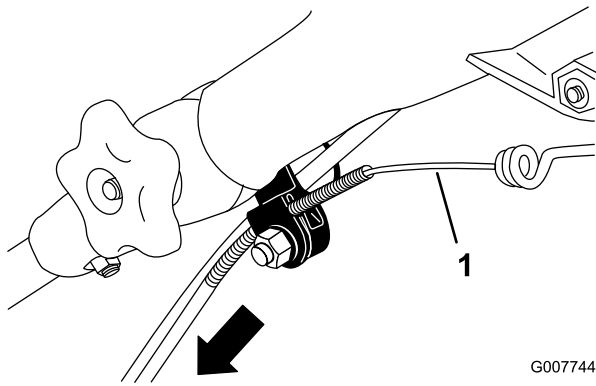


Figure 44

**Note:** Use the straw that comes with the spray can to direct the spray.

2. Push the upper handle fully down and spray the inner plastic surface of the outer handle (Figure 45).

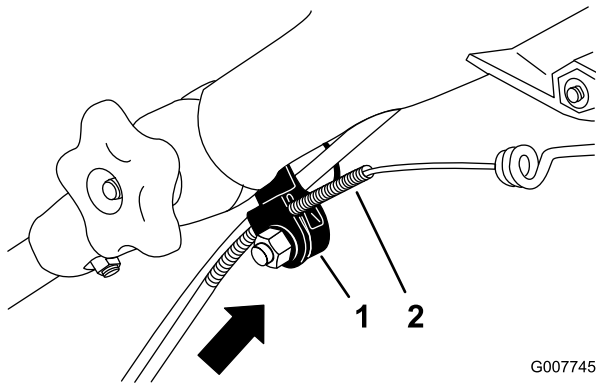


**Figure 47**

1. Exposed cable

4. Push the cable jacket upward 1/8 inch (3 mm).

**Note:** You can place a ruler against the upper side of the black cable mount and measure how far the upper end of the cable jacket moves (Figure 48).



**Figure 48**

1. Cable mount
2. Cable jacket

**Note:** Moving the cable jacket upward decreases the ground speed; moving the jacket downward increases the ground speed.

5. Tighten the nut firmly.
6. Start the mower and check the adjustment.

**Note:** If the self-propel drive is not properly adjusted, repeat this procedure.

## Replacing the Blade

**Service Interval:** Yearly

**Important:** You will need a torque wrench to install the blade properly. If you do not have a torque wrench or are uncomfortable performing this procedure, contact an Authorized Service Dealer.

Examine the blade whenever you run out of gasoline. If the blade is damaged or cracked, replace it immediately.

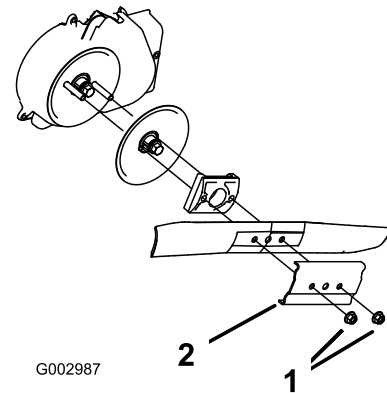
If the blade edge is dull or nicked, have it sharpened or replace it.

### **▲ WARNING**

The blade is sharp; contacting the blade can result in serious personal injury.

Wear gloves when servicing the blade.

1. Disconnect the spark plug wire from the spark plug. Refer to Preparing for Maintenance.
2. Tip the mower onto its side with the air filter up.
3. Remove the 2 blade nuts and the stiffener (Figure 49).



**Figure 49**

1. Blade nuts
2. Stiffener

4. Remove the blade (Figure 49).
5. Install the new blade (Figure 49).

**Important:** Position the curved ends of the blade to point toward the mower housing.

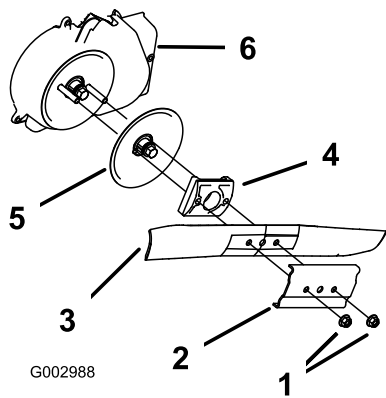
6. Install the stiffener you removed in step 3.
7. Install the blade nuts and torque them to 15 to 27 ft-lb (20 to 37 N-m).

## Cleaning the Blade Brake Clutch Shield

**Service Interval:** Every 25 hours

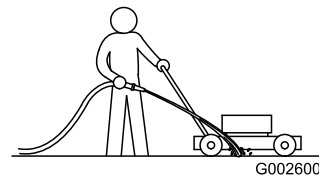
Clean the blade brake clutch shield at least every 25 operating hours or yearly to prevent the blade from stalling while you mow.

1. Disconnect the spark plug wire from the spark plug. Refer to Preparing for Maintenance on page 18.
2. Tip the mower onto its side with the air filter up.
3. Remove the 2 blade nuts and the stiffener (Figure 50).



**Figure 50**

- |               |                              |
|---------------|------------------------------|
| 1. Blade nuts | 4. Blade driver              |
| 2. Stiffener  | 5. Disk                      |
| 3. Blade      | 6. Blade brake clutch shield |



**Figure 51**

3. When no more clippings come out, stop the water and move the mower to a dry area.
4. Run the engine with the blade engaged for a few minutes to dry the housing to prevent it from rusting.

4. Remove the blade (Figure 50).
5. Remove the blade driver and disk (Figure 50).
6. Remove the blade brake clutch shield (Figure 50).
7. Brush or blow out debris from the inside of the shield and around all the parts.
8. Install the blade brake clutch shield (Figure 50).
9. Install the blade driver (Figure 50).
10. Install the blade (Figure 50).

**Important:** Position the curved ends of the blade to point toward the mower housing.

11. Install the stiffener (Figure 50).
12. Install the blade nuts and torque them to 15 to 27 ft-lb (20 to 37 N·m).

## Cleaning the Mower

**Service Interval:** Before each use or daily

### **⚠ WARNING**

The mower may dislodge material from under the mower housing.

- Wear eye protection.
  - Stay in the operating position (behind the handle).
  - Do not allow bystanders in the area.
1. Move the mower onto a flat paved surface.
  2. With the engine running and the blade engaged, spray a stream of water in front of the **right** rear wheel (Figure 51).

The water will splash into the path of the blade, cleaning out the clippings.

# Storage

Store the mower in a cool, clean, dry place.

## Preparing the Mower for Storage

### **⚠ WARNING**

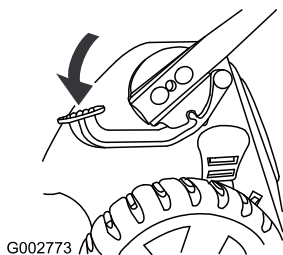
Gasoline vapors can explode.

- Do not store gasoline more than 30 days.
  - Do not store the mower in an enclosure near an open flame.
  - Allow the engine to cool before storing it.
1. On the last refueling of the year, add fuel stabilizer to the fuel as directed by the engine manufacturer.
  2. Run the mower until the engine stops from running out of fuel.
  3. Prime the engine and start it again.
  4. Allow the engine to run until it stops. When you can no longer start the engine, it is sufficiently dry.
  5. Disconnect the wire from the spark plug and connect the wire onto the retaining post.
  6. Remove the spark plug, add 1 oz. (30 ml) of oil through the spark plug hole, and pull the starter rope **slowly** several times to distribute oil throughout the cylinder to prevent cylinder corrosion during the off-season.
  7. Install the spark plug and tighten it with a torque wrench to 15 ft-lb (20 N-m).
  8. Tighten all nuts, bolts, and screws.

## Folding the Handle

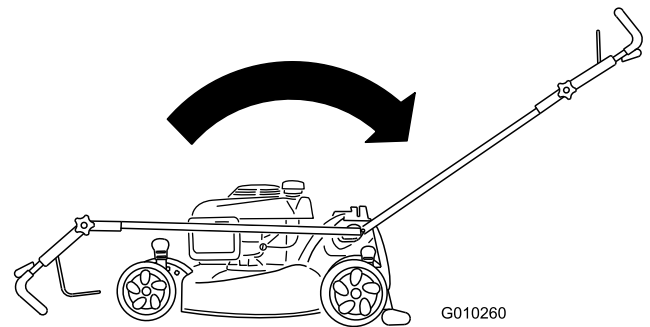
### Upright Position

1. Step on the foot pedal and hold it down (Figure 52).



**Figure 52**

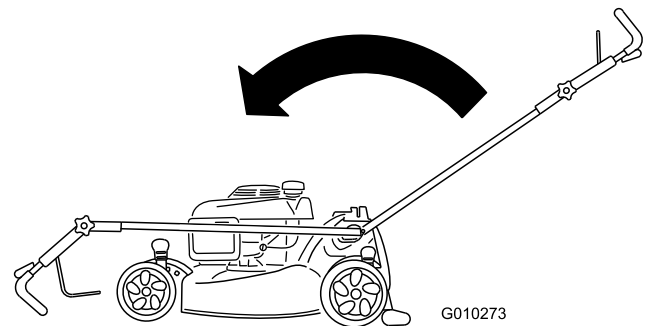
2. Move the handle to the upright position (Figure 53).



**Figure 53**

### Forward Position

1. With the handle in the upright position, step on the foot pedal and hold it down.
2. Move the handle all the way forward and loosen the upper handle knob (Figure 54).



**Figure 54**

3. To unfold the handle, refer to Unfolding the Handle.

## Removing the Mower from Storage

Connect the wire to the spark plug.

**Notes:**

**Notes:**

# Notes:



**The Toro Total Coverage Guarantee**  
 A 5-Year Full Warranty (45 Day Limited Warranty for Commercial Use)  
**The Toro GTS Starting Guarantee**  
 A 5-Year Full Warranty (Not Applicable for Commercial Use)

Super Recycler®  
 Super Bagger  
 Walk Power Mowers

**Conditions and Products Covered**

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to repair the Toro Products listed below if used for residential purposes\* if it is defective in materials or workmanship or if it stops functioning due to the failure of a component; or if the Toro GTS (Guaranteed to Start) engine will not start on the first or second pull, provided the routine maintenance required in the *Operator's Manual* have been performed.

This warranty covers the cost of parts and labor, but you must pay transportation costs.

The following time periods apply from the date of purchase:

Products	Warranty Period
Super Recycler® Mowers	5 year full warranty
Super Bagger Mowers	5 year full warranty
GTS (Guaranteed to Start)	5 year full warranty
Accessories (for above mowers)	5 year full warranty
Battery	1 year full warranty

**Limited Warranty for Commercial Use**

Gas-powered Toro Products used for commercial, institutional, or rental use, are warranted for 45 days against defects in materials or workmanship. Components failing due to normal wear are not covered by this warranty.

The Toro GTS (Guaranteed to Start) Starting Guarantee does not apply when the product is used commercially\*.

**Instructions for Obtaining Warranty Service**

If you think that your Toro Product contains a defect in materials or workmanship, follow this procedure:

1. Contact any Authorized Toro Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, refer to the *Yellow Pages* of your telephone directory (look under "Lawn Mowers") or access our web site at [www.Toro.com](http://www.Toro.com). You may also call the numbers listed in item #3 to use the 24-hour Toro Dealer locator system.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer. The dealer will diagnose the problem and determine if it is covered under warranty.
3. If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

Customer Care Department, RLC Division  
 Toro Warranty Company  
 8111 Lyndale Avenue South  
 Bloomington, MN 55420-1196  
 Toll free at 888-865-5688 (U.S. customers)  
 Toll free at 888-865-5705 (Canadian customers)

**Owner Responsibilities**

You must maintain your Toro Product by following the maintenance procedures described in the *Operator's Manual*. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

**Countries Other than the United States or Canada**

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.

\*Residential purposes means use of the product on the same lot as your home. Use at more than one location, or institutional or rental use, is considered commercial use, and the commercial use warranty would apply.

**Items and Conditions Not Covered**

There is no other express warranty except for special emission system coverage and engine warranty coverage on some products. This express warranty does not cover the following:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, oil changes, spark plugs, air filters, blade sharpening or worn blades, cable/linkage adjustments, or brake and clutch adjustments
- Any product or part which has been altered or misused and requires replacement or repair due to accidents or lack of proper maintenance
- Repairs necessary due to failure to use fresh fuel (less than one month old), or failure to properly prepare the unit prior to any period of non-use over one month
- Pickup and delivery charges
- Operational misuse, neglect, or accidents
- Repairs or attempted repairs by anyone other than an Authorized Toro Service Dealer
- Repairs or adjustments to correct starting difficulties due to the following:
  - failure to follow proper maintenance procedures
  - rotary mower blade striking an object
  - contaminants in the fuel system
  - improper fuel (consult your *Operator's Manual* if in doubt)
  - failure to drain the fuel system prior to any period of non-use over one month
- Special operational conditions where starting may require more than two pulls:
  - first time starts after extended period of non-use over one month or seasonal storage
  - cool temperature starts such as those found in early spring and late autumn
  - improper starting procedures - if you are having difficulty starting your unit, please check the *Operator's Manual* to ensure that you are using the correct starting procedures. This can save an unnecessary visit to an Authorized Toro Service Dealer.

**General Conditions**

All repairs covered by these warranties must be performed by an Authorized Toro Service Dealer using Toro approved replacement parts. Repair by an Authorized Toro Service Dealer is your sole remedy under this warranty.

**Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental, or consequential damages in connection with the use of the Toro Products covered by these warranties, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under these warranties.**

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.